LOCAL SOURCE CONTROL

Technical Assistance Manual

Auto Body Pilot

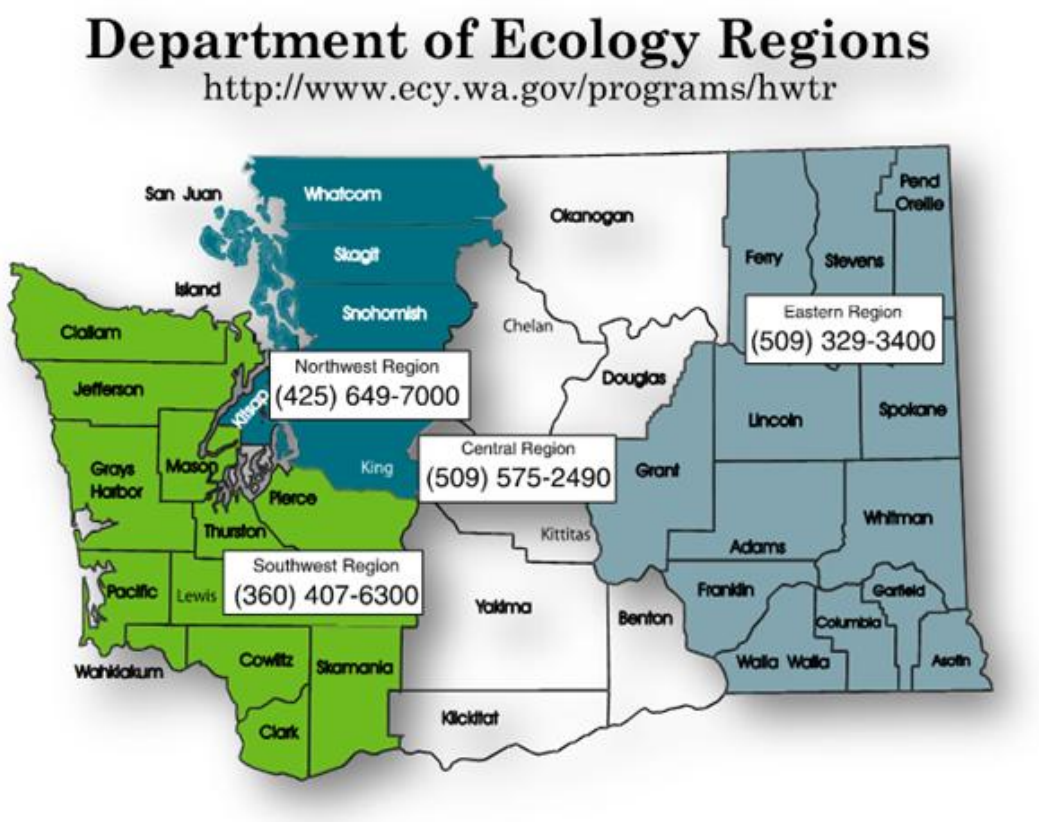
Ecology Publication 08-04-017

DEPARTMENT OF ECOLOGY
State of Washington

Acknowledgement

This Local Source Control Auto Body Pilot Technical Assistance Manual was developed by the Washington State Department of Ecology's Hazardous Waste and Toxics Reduction Program (HWTR). HWTR wishes to thank these other Ecology program contributors for volunteering their time and sharing their expertise in this effort:

- Air Quality
- Solid Waste and Financial Assistance
- Water Quality



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Please note*: Because this document is available by section, it made sense to add the publication number to each section, so that it would be visible on any section printed. In August of 2011, a footer with the publication number was added. No content was changed or revised during the process of adding the footer, however the pagination is different than the original.*

If you need this information in an alternate format, please call the Hazardous Waste and Toxics Reduction Program at (360) 407-6700. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call (877) 833-6341.

Technical Assistance Manual

In partnership with:

Finally, all the state environmental requirements for the auto body industry in one place!

Use this manual to understand industry requirements for air, water, waste, and shop operations.
This manual outlines the requirements recommended and enforced by the Department of Ecology that affect auto body shops. It covers best management practices needed to satisfy these requirements. Some important requirements from other agencies are also outlined.

The guidance will help shops understand the multiple requirements for the proper control and management of shop wastes. It will outline best practices to help shops keep contaminants out of our air and water. The manual also contains contact information to help you get personalized assistance from Ecology staff or contractors and dozens of Web links for more information.

The manual provides all the essential information to help you satisfy regulatory requirements and do your part to protect the environment. Learn how to qualify for the EnviroStars Program if your shop is located in a county that participates.

Use this manual to:
- Understand the environmental requirements that apply to your shop.
- Figure out if your shop is following environmental requirements.
- Fill out the self-certification checklist.
- Find solutions to compliance problems.
- Prepare a plan to fix problems and bring your shop into compliance.

Use this manual as a "go to" resource. Each section has a tab with a table of contents to help you find what you are looking for. Sections include:
- Dangerous Waste
- Air Quality
- Management and Records
- Water Quality
- EnviroStars

Use this manual to fill out the self-certification checklist. The sections are organized similarly to the self-certification checklist. The headings of the checklist sections are the same in this book. Find your topic in the table of contents to locate answers to your questions.

Keep this manual or the electronic version handy for questions that might come up in the future. Thanks for participating!

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Tables and Figures

Dangerous Waste Contents

Federal and state environmental laws require that all dangerous wastes be handled safely so they pose no threat to human health or the environment. Businesses that make dangerous waste are responsible for the waste from cradle to grave. This section covers the essential actions required for dangerous waste generators:

1. Identifying dangerous waste.
2. Generator status and reporting.
3. Properly storing dangerous waste.
4. Transporting/shipping dangerous waste.

REMEMBER: DANGEROUS WASTE MAY NEVER BE THROWN IN THE TRASH.

1. Identifying Dangerous Waste (Designation)

Definition of "hazardous" and "dangerous" waste

- **Hazardous Waste** is listed or defined waste under the Federal Resources Conservation and Recovery Act (RCRA), also called RCRA waste.
- **Dangerous Waste** is hazardous waste plus Washington-state-only waste. Dangerous waste is the preferred term in Washington State.

Identifying your wastes and assigning waste codes to them is called "designation" in the *Dangerous Waste Regulations*. The main methods for this are through knowledge and research about the waste (book designation), or through laboratory testing. Dangerous waste service providers may be able to assist in this process.

Some wastes that may designate include:

- Paint booth filters.
- Aerosol cans.
- Conditionally regulated wastes, such as used oil and antifreeze.
- Universal wastes, such as fluorescent bulbs and other mercury-containing items.

For a more complete list of wastes in auto body shops that may be dangerous and their waste codes, see Table 1, *Common Wastes in Auto Body Shops that May Be Dangerous* on page 9.

Paint-booth filters

Paint-booth filters are often dangerous waste

Historically, toxic metals such as cadmium, chromium and lead have been used in paint pigments. These metals may still be present in some primers or other specialized coatings and end up in paint-booth filters.

Halogenated organic compounds (HOCs) may be used as flame-retardants in the filters or as ingredients in the paint. Some filters use HOCs in the manufacturing process, so that the filters have very high levels of HOCs even before they are used. This type of filter may be called HOC-based or blown. The Washington State Department of Ecology (Ecology) does not recommend using filters manufactured this way.

Testing paint-booth filters

If your facility is inspected, you may be asked to prove your filters are not dangerous waste. Test filters when it is time to change them. Here is how:

1. Protect yourself from hazardous dust during this process. Cut a one-foot square piece from the dirtiest part of the filter or bank of filters, and seal it in a plastic bag.
2. Send the filter sample to a lab (see *Find a testing laboratory*, on page 5).
   - Request SW-846 Method 9023, for *Halogenated Organic Compounds*.
   - Request SW-846 Method 1311, *Toxicity Characteristic Leaching Procedure (TCLP) for Metals* if you suspect your primer contains lead, chrome or cadmium. Check the Material Safety Data Sheets (MSDS) or talk to your manufacturer if you are unsure.
3. Use the lab report to identify if filters are dangerous waste and retain a copy of the report for at least five years.

Filters are dangerous waste if they contain any of the following:

- Halogenated organic compounds: more than or equal to 100 parts per million (mg/kg)
- Lead or Chromium: more than or equal to 5 parts per million (mg/L)
- Cadmium: more than or equal to 1 part per million (mg/L)

There are other metals and compounds that can make your filters designate, but those listed above are a few of the most likely contaminants.

If you need help reading or interpreting your lab results, ask your dangerous waste service provider, or call an Ecology regional office for assistance. Remember, you are ultimately responsible for identifying any dangerous waste you generate.

Find a testing laboratory

Washington State does not certify nor give accreditation to laboratories that perform dangerous waste designation analysis. However, Ecology maintains a *Hazardous Waste Service Providers Directory* that lists laboratories that ask to be posted under Labs and Testing Services. It is available online at http://apps.ecy.wa.gov/hwsd/default.htm.

For more information, see *Choosing an Analytical Laboratory for Dangerous Waste Testing,* Ecology publication #00-04-022. Find it online at www.ecy.wa.gov/pubs/0004022.pdf.

See *Generator Status and Reporting* on page 11 for more information on counting filters as waste and *Properly Storing Dangerous Waste* on page 13 for proper handling.

Aerosol Cans

Aerosol cans may be dangerous waste because the contents are under pressure, often toxic, and may be flammable.

Two options are available for managing aerosol cans with dangerous waste contents:

1) Puncture can with a commercial puncturing device and drain on-site. Commercial puncturing devices can safely and legally separate hazardous gases and fluids from the aerosol container. If the recovered materials designate they must be counted and handled accordingly. The empty cans may be recycled as scrap metal.

2) Send the can with its contents off-site to a permitted treatment, storage, and disposal facility or a moderate risk waste facility. If possible, remove the stem or replace the cap on collected cans.

Focus on Management of Aerosol Cans, Ecology publication #07-04-005 can provide more information. Find it at www.ecy.wa.gov/pubs/0704005.pdf.

See *Generator Status and Reporting* on page 11 for more information on counting filters as waste and *Properly Storing Dangerous Waste* on page 13 for proper handling.

Conditionally regulated dangerous waste

Used oil, antifreeze, and chlorofluorocarbons (CFCs) are conditionally regulated dangerous wastes. As an incentive to recycle them, these wastes do not count toward your dangerous waste accumulation totals and do not require a manifest when shipped, if handled according to the rules outlined below.

Used oil

If your shop generates any quantity of used oil and used oil filters, you are responsible for properly handling, recycling, or disposing of that used oil. Not all used oil meets the criteria for recycling.

For more information on the proper management of used oil, see these Ecology publications:

- *Materials that may or may not be managed as used oil in Washington State*, #06-04-00x, www.ecy.wa.gov/pubs/060400x.pdf.
- *Best Management Practices for Used Oil Generators*, #06-04-034, www.ecy.wa.gov/pubs/0604034.pdf.

Spent antifreeze

Spent ethylene glycol antifreeze is toxic and may contain lead and other hazardous contaminants. If spent ethylene glycol antifreeze is recycled, it is a conditionally regulated waste and does not count towards generator status or require a manifest.

Spent propylene glycol antifreeze may designate as dangerous waste due to the metal content. It is not included in the conditionally regulated category and must be counted if it designates as dangerous waste.

For more information, see *Focus on Spent Antifreeze,* Ecology publication #03-04-017, www.ecy.wa.gov/pubs/0304017.pdf.

Chlorofluorocarbons (CFCs)

Chlorofluorocarbons (CFCs, freon, R-12, R-22) are a family of chemicals used in refrigerants and aerosols. CFCs must be handled by trained technicians on approved equipment, and disposed of according to dangerous waste regulations.

Technician training and certification

Technicians who perform a service that may release refrigerant must be trained and certified by an Environmental Protection Agency (EPA)-approved organization. A list of approved programs is available from EPA.

- All shops must certify to EPA that they own approved equipment and that technicians using the equipment are certified.
- If refrigerant is recovered and sent to a facility, the name and address of that facility must be retained.
- Service records must be kept for three years.

Approved equipment
Technicians repairing or servicing motor vehicle air conditioners must use EPA-approved recovery or recover/recycle equipment. Approved recover/recycle equipment must meet the technical specifications of the Society of Automotive Engineers (SAE) Standard J-1990. It must also have the capacity to purify used refrigerant to SAE Standard J-2209 for safe and direct return to the air conditioner following repairs.

Recovery-only equipment must meet SAE Standard J-2209. After removing the CFCs from the system, technicians are required to either recycle the used refrigerant on-site, or send it to an off-site reclamation facility.

Disposal
CFCs are classified as dangerous waste in Washington State. However, when reclaimed or recycled according to the rules above, they do not count toward your generator status or require a manifest when transported off-site. However, any cross-contamination renders the recovered refrigerants un-recyclable, and they must then be treated as dangerous waste.

For more information, see *Chlorofluorocarbons (CFCs) and the Auto Repair Shop*, Ecology publication #FA-93-27, www.ecy.wa.gov/pubs/fa9327.pdf. If you have questions or complaints about CFCs, please contact the EPA Hotline at (800) 424-4EPA.

Universal Waste

Types of universal waste

Universal wastes (UW) are common dangerous wastes generated by a wide variety of businesses. As an incentive to recycle them, businesses may dispose of universal waste under less strict guidelines than dangerous waste only if it is handled according to the universal-waste rule. The rule is summarized below, but for more information, see WAC 173-303-573 or *Universal Waste Rule*, Ecology publication #98-407, www.ecy.wa.gov/pubs/98407.pdf.

Benefits of managing dangerous waste as UW include:

- Simple, streamlined waste management requirements.
- Higher accumulation quantity limits.

- Longer accumulation time limits.
- They are not counted toward waste generation totals to determine generator status.
- They do not need to be included on the Dangerous Waste Annual Report.

Washington State adopted four categories of universal waste:

1. **Batteries**.
2. **Lamps** (including fluorescent light bulbs and tubes, high-intensity discharge lamps and some auto headlamps).
3. **Mercury-containing thermostats**.
4. **Other mercury-containing equipment** (such as relay and tilt switches, thermometers and barometers).

Batteries

All batteries that are dangerous waste can be managed as universal waste, including:

- Alkaline
- Mercury-oxide
- Alkaline-manganese
- Zinc-carbon
- Zinc air
- Button cell mercuric oxide
- Silver oxide
- Lithium
- Nickel-cadmium (Ni-Cd)
- Lead-acid*

**Spent lead-acid batteries (typically automotive-type batteries) can also be managed as universal waste. However, they are most often managed under the optional lead-acid battery exemption at WAC 173-303-520. This exemption minimally regulates generators and transporters of lead-acid batteries as long as the batteries are safely brought to a recycler.*

Mercury-containing lamps (bulbs and tubes)

Most auto body shops have mercury-containing bulbs and tubes. These must be handled carefully to avoid breakage.

What to do if you break a fluorescent bulb

- Avoid breathing vapors or touching broken materials. Do not vacuum or sweep.
- Open windows to vent for at least 15 minutes.
- Use stiff paper or cardboard to pick up large pieces.
- Use duct tape to pick up small pieces and powder.
- Wipe the area clean with a damp paper towel or wet wipe.
- Wash your hands.
- Dispose of as dangerous waste – not in your trash.

HEALTH AND ENVIRONMENT HAZARDS OF MERCURY

- HEALTH RISK FROM INHALATION OR ABSORPTION.
- CAUSES BRAIN AND NERVOUS SYSTEM DISORDERS, HEART PROBLEMS.
- PERSISTENT, BIOACCUMULATIVE, AND TOXIC.
- MAJOR CAUSE OF CONTAMINATED FISH ADVISORIES.

Fluorescent tubes may be stored in a barrel or in the box in which they were purchased, if relabeled. Pack boxes snugly, and never tape tubes together.

Mercury-containing equipment

Mercury-containing equipment includes devices that contain elemental mercury, such as mercury-containing auto switches, thermostats, and thermometers. Auto body shops may handle mercury-containing auto switches as universal waste.

Storing and labeling universal waste

Universal waste can be accumulated with no time limits, provided the handler accumulates no more than 2,200 pounds of universal waste. The waste must be sent to a facility equipped to handle and recycle universal waste.

Containers must be properly labeled. Include:

- The words "Universal Waste."
- The accumulation start date.
- Identification of the contents.

The storage area needs to be clearly marked and protected so that waste containers are not damaged while stored.

Recycling and disposing of universal waste

Universal waste must be sent to destination facilities that treat, dispose of, or recycle universal waste. The transporter must have a valid RCRA Site ID #, and the collection facility must comply with state requirements. These rules are outlined in *Universal Waste Rule*, Ecology publication #98-407, also available at www.ecy.wa.gov/pubs/98407.pdf.

Table 1. Common Wastes in Auto Body Shops that May Be Dangerous

Waste	Type of waste and why	Waste code
Waste methylene chloride paint stripper (unused)	Listed waste: the discarded material is a commercial chemical product listed for toxicity.	Listed: U080
Waste methylene chloride paint sludge stripped from vehicles	Listed waste: the solvent blend contains, before use, 10% or more of methylene chloride.	Listed: F002
Waste gun-cleaning solvent	Listed and ignitable waste: the solvent blend contains, before use, 10% or more of solvents such as toluene and MEK. The mixture also has a flash point below 140°F.	Listed: F005 Characteristic: D001

Waste	Type of waste and why	Waste code
Waste paint thinner	Listed and ignitable waste: the solvent blend contains, before use, 10% or more of solvents such as toluene and MEK. The mixture also has a flash point below 140°F.	Listed: F005 Characteristic: D001
Sludge or "bottoms" from solvent still that recycles gun cleaner or thinner	Listed and often ignitable waste: still bottoms from a still where the solvent blend contains, before use, 10% or more of solvents such as toluene and MEK. The mixture also has a flash point below 140°F.	Listed: F005 Characteristic: D001
Waste or expired oil (solvent)-based paint	Ignitable if flashpoint is below 140°F. Often designates due to metal content.	Characteristic: D001
Waste paint-booth filters	Often characteristic-toxic waste due to trace metals or halogenated organic compounds. Filters should be tested.	Test to determine waste code.
Masking tape and paper	Often characteristic-toxic waste due to trace metals.	Test to determine waste code.
Waste sanding dust	Sometimes characteristic-toxic if dust is from older vehicles.	Test to determine waste code.
Used motor oil	Often characteristic-toxic waste due to levels of lead and/or benzene. Usually recycled.	Test to determine waste code or recycle through approved handler.
Spent ethylene glycol anti-freeze	Always state-only waste and often characteristic-toxic, due to lead and other heavy metals. Recyclable.	WT02 Not needed if recycled.
Absorbent materials, such as Speedi-dry, contaminated with dangerous waste	Absorbents contaminated with dangerous waste become dangerous waste.	Code depends on materials absorbed.
Shop towels/rags contaminated with dangerous waste	Absorbents soaked with dangerous waste become dangerous waste. However, non-dripping rags/towels are not considered dangerous waste if they are: • Laundered at an appropriate facility, • Stored in containers away from a source of ignition, AND • Not mixed with other wastes.	Code depends on materials absorbed. Not needed if properly laundered.
Mercury-bearing light bulbs/lamps (fluorescent bulbs)	Bulbs and tubes can be characterized as toxic, due to mercury, but they can be handled as a universal waste. (See *Universal Waste* section.)	Not needed if handled as universal waste.
PCB-containing light ballasts	Ballasts are listed with PCB concentration of more than 2 ppm.	WPCB
Aerosol cans	Propellant is most likely ignitable and the product may be dangerous waste.	Characteristic: D001, D003. Test to determine the waste code of contents.
Tires	Tires are not considered dangerous waste, but no more than 30 tires can be stored on-site at any time.	Not needed.

2. Generator Status and Reporting

Different rules apply depending on how much dangerous waste you generate and accumulate. These levels are usually referred to as "generator status." Generator status is determined by the maximum amount of waste generated in a month during a calendar year. Document the waste made each month and at the end of the year, report the largest amount recorded in the year.

Waste must be counted in pounds, including liquids. Water weighs approximately eight pounds per gallon. Many clean solvents weigh less than water, but contaminants add weight to dirty solvents.

Table 2. Guidelines to Generator Status

<table>
<tr><th></th><th>SQG
(Small Quantity Generators)</th><th>MQG
(Medium Quantity Generators)</th><th>LQG
(Large Quantity Generators)</th></tr>
<tr><td rowspan="2">Maximum amount of dangerous waste generated in any calendar month</td><td>Less than 220 pounds (25 gallons)</td><td rowspan="2">220-2,200 pounds (25 - 300 gallons)</td><td>More than 2,200 pounds (300 Gallons)</td></tr>
<tr><td>and less than 2.2 pounds of any acutely hazardous waste or extremely hazardous waste (waste code WT01)</td><td>or 2.2 pounds or more of any acutely hazardous waste or extremely hazardous waste (waste code WT01)</td></tr>
<tr><td>Amount of dangerous waste accumulated at any one time</td><td>Less than 300 gallons (2,200 pounds)</td><td>Less than 300 gallons (2,200 pounds)</td><td>No limit</td></tr>
</table>

Please note: *It is unlikely that your shop uses any chemicals classified as* ***Extremely Hazardous Waste*** *(EHW) or* ***Acutely Hazardous Waste*** *(AHW) mentioned in the table above. However, it is your responsibility to identify whether or not you have these. Ask your dangerous-waste service provider to help you identify them or call your regional Ecology office to find out how (see* Appendix A *on page 77 for phone numbers).*

Remember to weigh:

- Still bottoms.
- Paint-booth filters if they designate as dangerous waste. (See *Paint-booth filters*, on page 4.)
- Expired products being disposed of (these could potentially be EHW or AHW).
- Recycled solvent not documented as recycled.

It is essential to keep records of all of your dangerous waste generated to determine which rules apply to you. These records are required during a compliance inspection. The generator's reporting status is defined by the greatest quantity of dangerous waste generated or accumulated in any one calendar month.

Please see Table 5, *Recordkeeping Checklist* on page 49 for a list of all the records you should keep and for how long.

RCRA site identification numbers

Who needs a Site ID #?

The Resource Conservation and Recovery Act (RCRA) Site Identification Number, also known as an EPA Number or, most commonly, RCRA Site ID #, is required for many facilities:

- Businesses that generate regulated amounts of dangerous waste (more than 220 pounds per month or 2.2 pounds. of extremely hazardous waste or accumulate greater than 2,200 pounds at any given time).
- Transporters that haul manifested shipments of dangerous waste.
- Facilities that transfer, store, treat, recycle, or dispose of dangerous waste.

REMEMBER:

- YOU CANNOT USE ONE NUMBER FOR MULTIPLE LOCATIONS.
- IT IS ILLEGAL TO OFFER DANGEROUS WASTE TO A TRANSPORTER OR WASTE-MANAGEMENT FACILITY THAT DOES NOT HAVE A RCRA SITE ID #.

Small-quantity generators do not need a Site ID # unless their dangerous waste transporter requires one to remove waste.

For more information on obtaining a RCRA Site ID #, please visit Ecology's Hazardous Waste and Toxics Reduction Program Web site at www.ecy.wa.gov/programs/hwtr/index.html or call (800) 874-2022.

Annual reporting requirements

If you are an SQG and do not have a RCRA Site ID #, then you are not required to report. Generators with an active RCRA Site ID # are required to submit an Annual Dangerous Waste Report, even if they did not generate any dangerous waste that year.

Dangerous Waste Annual Reports are due by March 1. They should include the amount of dangerous waste generated, accumulated, sent off-site, and recycled each month for the reporting year. Keep a copy of your Annual Report for at least five years.

3. Properly Storing Dangerous Waste

Waste accumulation time limits

Table 3. Generator Status Determines Waste Accumulation Limits

Generator status	Amount allowed at one time	Time allowed
Small-quantity generator	Less than 2,200 pounds (about 300 gallons)	No time limit
Medium-quantity generator	Less than 2,200 pounds (about 300 gallons)	180 days
Large-quantity generator	No limit	90 days

Accumulation areas

You should have a centralized place for storing hazardous waste in your shop. The accumulation area should:

- Be well marked and access-restricted to avoid accidental damage to containers.
- Have a floor made of an impervious material, such as concrete, and be free of cracks.
- Be indoors or under cover outside and protected from stormwater.
- Have no active floor drains in the area. This may require sealing the drain. A sealed drain means that no water can enter the drain and leave the premises. Proper sealing may include sealing the hole with a commercially available drain seal, cap, plug, epoxy, or Portland cement. Drains that are not serving a useful and lawful purpose should be sealed.

REMEMBER:

- MAKE SURE YOU AND YOUR EMPLOYEES KNOW HOW TO OPEN, HANDLE OR STORE EACH TYPE OF WASTE CONTAINER SO AS NOT TO CAUSE IT TO RUPTURE OR LEAK.
- YOU MAY WANT TO CONSIDER A SPECIAL STORAGE CABINET FOR YOUR IGNITABLE WASTES.
- KEEP ALL DANGEROUS-WASTE CONTAINERS CLOSED EXCEPT WHILE ADDING OR REMOVING WASTE. IF YOU NEED TO ADD WASTE FREQUENTLY, CONSIDER USING A FUNNEL WITH A LATCHING LID.
- INSPECT THE AREA WEEKLY AND DOCUMENT THE INSPECTION.

- Keep incompatible wastes in separate areas by using a dike, berm, or wall. Use separate containment systems to collect spills.
- Maintain at least 30 inches of space between rows of waste containers.
- Inspect accumulation area weekly for signs of leaks or damage.

Secondary Containment

Secondary containment is required around accumulation areas to hold leaks and spills. Build or buy a containment system, such as a dike, berm, or commercial spill-containment pallet that can hold leaks and spills. A secondary containment system must be able to hold ten percent of the total volume of all containers with liquid waste, or the volume of the largest container, whichever is greater.

Waste stored inside a building may use the building itself as the secondary containment. If this option is chosen, prevent any spills from entering drains or escaping the building.

Auto body shops that generate hazardous waste should construct and/or purchase a containment system according to the requirements listed above.

For a sample inspection checklist of hazardous waste containers and accumulation areas look in *Appendix E* on page 93.

Satellite accumulation

Small amounts of dangerous waste may be generated at workstations called "satellite accumulation areas." A satellite accumulation area is a place to store waste as you work, before moving the waste to a central accumulation area. State and federal regulations allow generators to accumulate up to 55 gallons of hazardous waste for each waste stream, with no storage time limit, if the container:

- Is located at or near where the waste is created.
- Is under control of the operator of the process making the waste.
- Is in good condition.
- Is kept closed except when adding or removing waste.
- Is handled so as not to cause a rupture or leak.
- Is arranged so that chemically incompatible wastes cannot come in contact with each other.
- Is properly labeled.

REMEMBER:
IF YOU CHOOSE TO USE ONLY SATELLITE ACCUMULATION, YOU MUST:

- KEEP A CLOSE EYE ON THE AMOUNT OF WASTE IN THE CONTAINERS, AND
- ARRANGE FOR WASTE SHIPMENT PRIOR TO REACHING 55 GALLONS (MOST MOVE THEIR WASTE AT 30 GALLONS).

Transferring waste from satellite accumulation to dangerous waste accumulation areas

Satellite accumulation containers may not exceed 55 gallons of any one type of waste. Move full 55-gallon containers to a designated dangerous waste accumulation area within three days. Once a full container enters the area, the clock starts on accumulation time limits.

If you generate waste at such a slow rate that satellite accumulation alone is enough, you only need to follow the transportation requirements when you ship the waste off-site.

Containers and Labeling

Proper containers

Select a container made of waste-compatible material. For solvents, use metal drums; for acids and bases, use polyethylene. Generally, containers designed for food are not appropriate for chemical wastes.

The container must be intact, with no holes, safe for workers, and labeled correctly. If the waste is a powder, the material should not sift out during transport.

REMEMBER:

- LABELS MUST BE VISIBLE AND LEGIBLE.
- LABELS DO NOT NEED TO BE PRINTED IN COLOR (UNLESS INDICATED OTHERWISE).

Labeling waste

Each container must be properly labeled. Labels help waste handlers know how to protect themselves. Dangerous waste labels do not have to be any particular color or format, but they must be easy to read and include:

- The words "Dangerous Waste" or "Hazardous Waste"
- The major risk(s) associated with the waste in the container or tank. Risk labels are usually diamond-shaped and have pictures that show the risk.
- The date that waste was first put into the container, also known as the "accumulation start date." This is critical in determining how long the waste can be stored on-site. Accumulation start dates are not required for small-quantity generators, but are still a good idea.

Free printable labels are available from Ecology's Hazardous Waste and Toxics Reduction Program Web site at www.ecy.wa.gov/programs/hwtr. Look for the "Printable Labels" link or get them from the CD included with these materials.

Additional labeling is required when sending dangerous waste off-site. The U.S. Department of Transportation (USDOT) is in charge of labeling for transport. You can find information on their Web site at www.phmsa.dot.gov. Waste transporters may help you with transportation labels.

Container management

- Containers of dangerous waste stored in a dangerous waste accumulation area generally should be kept in container rows 30 inches apart.
- Incompatible wastes should be kept apart. Separate them by a dike, berm, or wall. Each should have separate secondary containment.
- Containers must be kept closed except when adding or removing waste. Lock all funnels and securely fasten ring locks. Remove any non-locking funnels.
- Keep containers covered and out of the weather.
- Inspect containers as part of weekly inspection of the accumulation area. Document the inspection.

4. Transporting / Shipping Dangerous Waste

Manifests

Use a legal transporter with a valid RCRA Site ID #. Many transporters may be found in the *Hazardous Waste Services Directory* on Ecology's Web site at http://apps.ecy.wa.gov/hwsd/default.htm. It is your responsibility to choose an appropriate transporter. Ecology does not recommend any one company.

A **Uniform Hazardous Waste Manifest** must accompany dangerous waste when it is shipped off-site. This is a record of the waste being transported. Often, your transporter can help you fill out this form properly.

REMEMBER:

- SIGN AND DATE THE MANIFEST FORM BY HAND, AND HAVE THE TRANSPORTER DO THE SAME WHEN THE WASTE IS PICKED UP FOR SHIPMENT.
- RETAIN ONE OF THE SIGNED COPIES, AND GIVE THE REST TO THE TRANSPORTER TO TAKE WITH THE SHIPMENT.

A Uniform Hazardous Waste Manifest must have the following information:

- Your RCRA Site ID #, if applicable. If you're not required to have a RCRA Site ID #, then write "exempt" or "CESQG"(conditionally exempt small-quantity generator) in place of your RCRA Site ID #.
- Your name, mailing address, and emergency phone number.
- The transporter's company name, RCRA Site ID #, and phone number.
- The dangerous-waste management facility's name, site address, phone number, and RCRA Site ID #.
- The name of an alternate receiving facility.
- The USDOT shipping name, hazard class, and identification number for each waste. (Your transporter or facility operator can usually help you with this, or contact USDOT.)
- The dangerous waste code(s) for each waste.
- Type and number of containers for each waste.
- The total quantity of each waste.
- Any special handling instructions.

When the transporter delivers the waste to the facility you have chosen, the facility representative accepts the waste and signs each copy of the manifest. The transporter takes a copy, the facility keeps a copy, and the facility sends you the last copy. This proves that the waste arrived at its destination.

Keep all manifests and exception reports for at least five years. However, it is a good idea to keep manifests, shipping papers, and receipts permanently as evidence that your waste was disposed of properly. You may be asked to show them during an inspection.

Recycling waste without a manifest

As an incentive to recycle certain dangerous wastes, such as used oil, spent antifreeze, and universal waste, Washington State allows these wastes to be sent off-site to a recycler without following the protocol of the Uniform Hazardous Waste Manifest.

If the waste is shipped to a recycler, then some form of shipping documentation is required as proof that you sent it off-site, but it does not need to be an official manifest. A bill of lading, receipt, or other documentation will work. Keep these records for five years as proof that the waste was recycled.

Self-transporting dangerous waste

Many household hazardous waste (HHW) facilities will accept dangerous waste from small businesses. Contact your local HHW facility to find out about their specific requirements for disposal of dangerous waste.

The USDOT has specific rules governing how and what you transport. See their Web site at www.phmsa.dot.gov for more information.

In general, to self-transport, you will need to have:

- Waste in a **proper container** (factory containers will work).
- **Proper labeling** that identifies the contents and its hazards.
- **Shipping papers**.

For small amounts of waste, the shipping papers may be a Uniform Hazardous Waste Manifest, a bill of lading, or any other form that includes the information required by the USDOT. Keep these shipping papers for at least five years.

It is a good idea to bring the MSDS for the original product along with the waste when bringing it to a HHW facility. If you intend on transporting more than one thousand pounds at one time, your requirements will be much stricter.

Table 4. Summary of Requirements for Dangerous Wastes

Accumulation	More than 2,200 pounds of dangerous waste (more than 4 fifty-five gallon drums of liquid) requires notification of the Washington State Department of Ecology.
Compatibility	Separate incompatible chemicals (e.g., flammable and oxidizers). See Materials Safety Data Sheet (MSDS) for guidance.
Container Condition	Store waste in containers that are in good condition, compatible with their contents, and free of rust, bulges, dents, and leaks.
Container Sealed/Closed	Keep lids on containers and funnels closed when not in use.
Labeling	Label your containers with "Dangerous Waste" or "Hazardous Waste," a description of the waste (e.g., waste solvent), and the primary hazard (toxic, flammable, etc.). (Regulated generators also need an accumulation start date.)
Secondary Containment	Prevent spills from reaching drains or the environment. Capacity for indoor storage should be no less than 10% of the volume of all containers or 110% of the volume of the largest container. Keep out rainwater.
Shipping	Retain manifests, or any other records of shipping waste off-site.
Storage Areas	Secure, covered, easily accessible, and protected from damage and rain.
Training	Make sure everybody who handles wastes knows how to handle it properly and safely.
Wastes	Know if your wastes are dangerous and how to properly dispose of them.

Top Pollution Prevention Tips for Dangerous Waste

Below are the top prevention tips for better reducing or eliminating dangerous waste from your processes. If the EnviroStars Program is available in your jurisdiction and you would like to participate, these may be helpful to use for your improvement goals. (See the *EnviroStars* section on page 73 for more information.)

Reducing the amount of toxic materials in your processes can save you money on the purchase and disposal of these items, in addition to protecting your workers' health and the environment.

❑ **Use least-toxic materials:**

- Look for less hazardous products.
- Use water-based or low-solvent coatings (primers, basecoats, and painting).
- Ask suppliers for coatings that do not contain toxic metals (chromium, lead, cadmium, nickel, and manganese). By using these safer coatings, your spray booth filters may not designate as dangerous waste.
- Avoid the use of methylene-chloride-based paint strippers.
- Use non-solvent-based putty/fillers.

❑ **Improve processes:**

- Use recycled solvent for gun cleaning.
- Reduce paint thinner waste. Use a drum that contains secondary wash thinner to reuse the thinner as a pre-wash.
- Use a centralized inventory system and/or "just in time" purchasing to minimize excess waste or theft. Save money by not purchasing products that you later pay to dispose of as hazardous waste.
- Use two-component systems that allow mixing of the paint and catalyst at the gun tip, eliminating the need for pre-mixing excess quantities to ensure adequate supply. Reduces frequency of equipment cleaning and reduces waste.
- Minimize the number of color changes. Schedule painting so that the painting system does not have to be flushed with solvent to accommodate multiple color changes. This will reduce the total amount of solvent used for cleaning.
- Use leftover paint as an undercoat or primer.
- Establish an employee incentive plan. Track reduced paint and solvent waste to each painter and pay a monetary bonus based on paint savings.

- Minimize the use of aerosols, especially those containing hazardous materials. Aerosols must be disposed of as dangerous waste unless the gas is discharged and contents drained with an aerosol capture device. In addition, the nature of an aerosol puts toxic chemicals in the breathing zone of workers.
- Purchase a still so that you can recycle your own solvent. Be sure to keep a log of your solvent recycling so you can take advantage of the break on counting it toward your dangerous waste generated. For information on purchasing a distillation unit, see *On-Site Distillation*, Ecology publication #94-31, www.ecy.wa.gov/pubs/94031.pdf
- Enforce a policy of allowing only "approved," least-hazardous products to enter the shop. Do not allow employees to circumvent your efforts to control the products that they use in your shop. Favorites brought from home do not belong on the shop floor.
- Include employees in product selection to reduce the introduction of unapproved or more hazardous materials.

❑ **Identify and label all products and work station containers:**

- Mixing a dangerous waste with a non-dangerous waste or product just makes more dangerous waste that you will need to dispose of later.
- Assigning a specific employee to be responsible for labeling containers will help ensure that it is done consistently.
- Train all employees in proper dangerous waste management procedures to avoid mixing wastes.

❑ **Keep a written Operations and Maintenance Plan to periodically inspect shop equipment:**

- Repair or correct defects found.
- Train and assign responsible persons to carry out the plan. When employees know what to do and how to do it your shop runs smoothly.
- Keep log records of the steps taken to identify problems, how they were resolved, and document your on-going commitment to keep things clean and safe.

❑ **Good ideas for universal waste:**

- Purchase low-mercury fluorescent tubes (with the green tips).
- Train employees that mercury-containing items must be handled as dangerous waste.
- Provide signs to help employees handle mercury-containing items safely.

❑ **Recycle everything you can to avoid paying to send it to a landfill or waste treatment facility**

Recyclable Dangerous Wastes

- Used oil
- Fluorescent tubes
- Rags
- Automotive batteries
- Paint thinner
- Aerosol cans
- Oil filters
- Hydraulic fluids
- CFCs
- Greases
- Paint
- Antifreeze
- Transmission fluids
- Batteries
- Brake fluid
- Solvents

Other recyclable wastes:

- Paper
- Glass
- Cleaning solutions
- Computers
- Cardboard
- Bumpers
- Vehicle wash water
- Plastic
- Scrap metal
- Pressure wash water

Air Quality Contents

In Washington State, regulations for auto-body shops to protect air quality generally come from EPA and local air agencies. Please look in *Appendix A* on page 77 for your specific county information. (These numbers are also listed further on in this section.)

If you are unsure about what rules apply to your shop, call your local air agency or contact the Permit Assistance Center at the Washington State Office of Regulatory Assistance (ORA) to get a comprehensive view of your requirements. ORA's Environmental Permit Service Center is open 9 a.m. to 4 p.m., Monday through Friday. Call (360) 407-7037 or (800) 917-0043 or send an e-mail to help@ora.wa.gov.

New Federal Requirements

Area source rule

EPA established an "area-source rule" for air quality to reduce the incidence of cancer caused by hazardous air pollutants (HAPs) in urban areas. This rule directly affects operations at auto body shops. Participation in this pilot will fill the notification requirements for this new rule.

The National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart HHHHHH – *Paint Stripping and Miscellaneous Surface Coating Operations* affects those who apply spray coatings to motor vehicles or mobile equipment, such as automobiles and light trucks. The rule can be viewed at www.epa.gov/ttn/atw/area/fr17se07b.pdf.

EPA has partnered with Ecology on this pilot program by allowing the self-certification checklist (accompanying this manual) to serve as the notification requirements for the area source rule. A completed self-certification checklist submitted to Ecology by March 31, 2009 qualifies as the Initial Notification. Ecology will share this information with EPA.

If your shop is already complying with the rule when you fill out the self-certification checklist *and* you complete and sign the Certification Statement attesting accuracy, then the self-certification will also count as your Notification of Compliance. If you have not met the requirements by the time you submit your self-certification, you can simply submit your Notification of Compliance directly to EPA by March 11, 2011, as outlined below.

Please read the following section carefully and make note of the changes that you will be expected to adopt. The new rule has requirements for painter training, spray booth filter efficiency, use of a spray booth, and paint stripping using methylene chloride chemical strippers.

Even if you do not spray coatings containing the targeted HAPs, you must still register with EPA for your Initial Notification. Again, completing the self-certification checklist for this pilot will count as your Initial Notification.

Effective dates

- Existing Sources: January 10, 2011
- New Sources: Upon startup after January 9, 2008

For more information, see the area source Web site *Rule Compilation Table* and look under MACT Subpart HHHHHH at www.epa.gov/ttn/atw/area/compilation.html or e-mail questions to R10_area_sources@epa.gov or call Heather Valdez at (206) 553-6220.

Steps to Comply With the New Rules

Required notifications

Step 1: Register

Complete the Local Source Control Auto Body Pilot Self-certification Checklist and submit to Ecology **or** submit an Initial Notification to EPA Region 10.

If you are already in compliance with all of the requirements when submitting the Initial Notification, include a signed Certification Statement with your Self-certification Checklist and you won't need to submit the Notification of Compliance later.

If you submit the Initial Notification or the Notification of Compliance directly to EPA, you can use the sample form *Appendix B* on page 83. You don't have to use the form, but you need to provide all the information requested on it.

Initial Notification must be received by:

Existing Sources:	January 11, 2010
New Sources:	July 7, 2008 or within 180 days of start-up

Send to:

Complete the Local Source Control Auto Body Pilot Self-certification Checklist and submit to:
Washington State
Department of Ecology
PO Box 47660
Olympia WA 98504-7660
Attn: Environmental Results Program

By March 31, 2009

OR

Complete an Initial Notification Form and submit to:

EPA Region 10
1200 Sixth Avenue #900 AWT-107
Seattle WA 98101
Attn: Area Sources

By January 11, 2010 or within 180 days of startup for new shops

Step 2: Make necessary changes at your shop

Some of the changes required may cost you money initially, but this cost can be offset over time by more efficient use of labor and materials. The sooner you start planning for and making the changes, the sooner you can start saving money. Read on to learn about the changes.

Step 3: Submit Notification of Compliance by March 11, 2011

The Notification of Compliance can use the same form as the Initial Notification. There is a sample form you can use in *Appendix B* on page 83. You don't have to use this form but you need to provide all of the information requested on it. If you were in compliance when submitting your Initial Notification or self-certification checklist and you submitted a signed Certification Statement, then you are not required to submit the Notification of Compliance.

Send to:
EPA Region 10
1200 6th Ave, Suite 900, AWT-107
Seattle WA, 98101

New training for painters

By January 10, 2011, all painters that spray-apply coatings must have completed classroom and hands-on training in the proper selection, mixing, and application of coatings. After January 10, 2011, the training must be completed no later than 180 days after hiring. Refresher training is required every five years.

Training must include:

- Spray gun equipment selection, set up, and operation. This includes measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.

- Spray technique for different types of coatings to improve transfer-efficiency and minimize coating usage and overspray. This includes maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.

- Routine spray booth and filter maintenance, including filter selection and installation.

- An overview of all the environmental requirements of the new area source rule covered here.

Proof of equivalent training and work experience can fulfill the painter-training requirement. Training requirements are described in §63.11173(f) at www.epa.gov/ttn/atw/area/fr09ja08.pdf. (See *Appendix C* on page 87 for training resources.)

Spray gun requirements

Old air-powered spray guns are obsolete

By January 10, 2011, use only high-volume, low-pressure (HVLP) spray guns, electrostatic spray guns, airless spray guns, or approved equivalents.

Any non-atomized application technique demonstrated to the appropriate air agency and determined to achieve equivalent emission reductions to HVLP or electrostatic-spray equipment may also qualify.

SAVE MONEY!

USING HIGH TRANSFER-EFFICIENCY SPRAY GUNS:

- DECREASES THE AMOUNT OF PAINT USED.
- DECREASES BOOTH-CLEANING EXPENSES.
- MAY DECREASE WASTE-DISPOSAL COSTS.

Enclosed spray gun cleaners

By January 10, 2011, paint spray gun cleaning must be done so that no fumes escape during cleaning. All spray guns must be cleaned in an enclosed spray-gun cleaner, by hand cleaning the disassembled gun parts, or by flushing solvent through the gun without atomizing the solvent or paint residue. Spraying solvent through a gun outside of a gun cleaner is prohibited.

Waste solvents collected must be kept in closed containers to avoid evaporation to the air. Enclosed spray-gun cleaners prevent solvent vapors from escaping into the environment. They also separate the sludge waste and re-circulate the solvent for reuse. Cleaning spray guns in enclosed gun cleaners can extend the life span of the gun.

Spray booth filter requirements

By January 10, 2011, all spray-applied coatings must be applied in an enclosed prep station or spray booth that is ventilated so that the exhaust passes through filters that are at least 98 percent efficient. Talk to your vendor to purchase a filter that is rated to meet these standards.

Owners and operators may use published filter efficiency data provided by vendors to show compliance with this requirement and are not required to perform this measurement.

When choosing spray booth filters, avoid filters containing halogenated organic compounds (HOCs). HOCs are regulated by the Washington State *Dangerous Waste Regulations*. Some filters use HOCs in the manufacturing process or as flame-retardants and may have very high levels even before they are used. Ecology does not recommend using filters manufactured in this way. Request filters without HOCs from your filter vendor.

Painting in an enclosed spray booth

The spray booth does not have to be a commercially manufactured booth, but it does need to fit the following criteria:

- Full cars must be painted in a spray booth with four walls, a roof, and a ventilation system. (Filters in the booth must remove at least 98% of the particulates. Your filter provider can give you the right filters and necessary paperwork to document the efficiency.)
- Parts of cars must be painted in a booth with at least three walls or flaps, a roof, and a ventilation system that pulls air into the spray booth or prep station.
- Spot repairs must be done in an enclosure that prevents any mist from getting out of the enclosure.

Preparation areas

Prep stations have specific requirements in the Fire Code and for the Division of Occupational Safety and Health (DOSH). Spray coating more than nine square feet needs to occur in a totally enclosed filtered booth or spray area (i.e., a spray booth). Spray coating less than nine square feet may occur in a dedicated preparation area exhausted through a stack with a 98% capture efficiency or re-circulated back into the shop after passing through a carbon adsorption system.

In general, spray booths and prep stations have to meet the same requirements.

- A positive pressure air supply with six complete air changes per hour and an intake face velocity of more than 100 feet per minute (fpm).
- Curtains or partitions that are non-combustible or have limited combustibility.
- A dedicated mechanical exhaust and filtration system.
- An approved automatic extinguishing system.

The amount of material sprayed in a prep station may not exceed 3.8 L (1 gallon) in any 8-hour period and spraying must not be continuous.

Paint stripping using methylene chloride

Methylene chloride, also called dichloromethane, is a listed hazardous air pollutant in Washington. Methylene chloride paint stripping waste must be managed as a state and federally regulated dangerous waste, thereby increasing your regulatory cost and compliance burden. Further, methylene chloride is regulated by the U.S. Occupational Safety and Health Administration (OSHA) for its ability to cause cancer and worsen heart problems.

By January 10, 2011, all shops/sources must certify that they have taken steps to minimize evaporative losses.

Hazards of Methylene Chloride (MeCl)/ Dichloromethane

- HARMFUL IF SWALLOWED OR INHALED.
- AN EYE AND SKIN IRRITANT.
- READILY ABSORBED THROUGH THE SKIN.
- AN ASPHYXIANT/ MAY CAUSE SUFFOCATION.
- A CENTRAL-NERVOUS-SYSTEM DEPRESSOR.
- POSSIBLY CAUSES CANCER AND/OR MUTATIONS IN HUMANS.

Steps may include:

- Evaluate whether it is possible to re-coat the piece without removing the existing coating.
- Ensure that there is no alternative paint stripping technology that can be used, optimizing stripper application conditions.
- Reducing exposure to air, and proper storage and disposal.

Minimization Plan

Sources that use one ton or more per year of paint stripper containing methylene chloride must also certify that they have developed, posted, and implemented a written methylene chloride minimization plan.

A minimization plan must include how the shop will implement the above management practices with regard to its facility operations. The plan must be kept on-site at all times and a placard or sign posted outlining the methylene chloride minimization plan in each area where paint stripping occurs.

Necessary records

In addition to the notifications and reports described above, all businesses must have records showing:

- Annual usage of methylene chloride in paint strippers.
- Records such as MSDS sheets for all paint strippers containing methylene chloride.
- The methylene chloride minimization plan for sources using one ton or more per year.
- Documentation of any deviations.
- Documentation of any information used to submit notifications or reports.

Keep these records to prove compliance

- **Initial Notification** — outlining when and how you comply with the new rules. See information above and in *Appendix B*, on page 83. Copy the self-certification checklist and Return-to-Compliance plan before submitting to Ecology.
- **Notification of Compliance** — could be the same form that was used for Initial Notification.
- **Certification Statement** — attesting to the accuracy of the self-certification. Must be signed and dated by the owner or operator of the shop. Make a copy before submitting to Ecology. The Certification Statement was included in the self-certification packet that arrived with this manual.

- **Annual notification of changes report** — after the compliance date has passed, this report is due March 1st of the following year, for each calendar year in which information previously submitted has changed. Report changes in equipment (spray booth or exhaust stacks), business name, or ownership, but do not include changes that were made strictly for the purpose of compliance with Subpart HHHHHH.
- **Painter training certifications.**
- **Spray-booth filter efficiency documentation.**
- **Spray-gun transfer efficiency documentation.**
- **Methylene chloride content information such as an MSDS.**
- **Annual usage** of methylene chloride for paint stripping, and written methylene chloride **minimization plan** if annual usage is over one ton per year.
- **Deviation and corrective action documentation**, if any.

The full text of the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart HHHHHH – *Paint Stripping and Miscellaneous Surface Coating Operations Rule* is on the Internet at www.epa.gov/ttn/atw/area/fr09ja08.pdf.

State and Local Air Agency Requirements

Registration with local air agencies

Regional air agencies regulate activities at auto body shops. The air agencies adopt many of the federal and state regulations and add local ordinances. In counties without air agencies, Ecology serves the role. The air agencies all have slightly different rules that pertain to auto body shops.

This section summarizes some of the general requirements for registration, permits, operations, maintenance manuals, and dust control. Contact your local air agency to know exactly which rules apply to your shop. Contact information can be found further on in this section and in *Appendix A* on page 77.

All shops must register with the regional air agency

Registration typically occurs through the permit or notification process and then is renewed annually. An emission report may be requested as part of this process.

Notice of Construction permits

A Notice of Construction (NOC) permit, or Order of Approval, is a pre-construction permit required by local air agencies prior to the start of new building construction or exhaust system upgrades. Auto body shops are generally required to have an air-quality permit prior to building or modifying their facility. There are exceptions for shops built before permits were required, and then only if the exhaust equipment was not modified since the shop was built. Some counties have exceptions based on volatile organic compound (VOC) emissions.

In your application for this permit describe the equipment you will use, the type of air pollution you will make, and what sort of air-pollution controls you will put into place. You probably already have this permit, but if you don't, please apply for one with your local air agency. There is a list of air agency contacts in *Appendix A* on page 77.

Operation and Maintenance manuals

Some regional air agencies require businesses to keep an Operation and Maintenance (O&M) manual. If you are unclear whether you are required to keep an O&M manual, contact your local air agency. You may be asked to show your manual during an inspection.
Your air (NOC) permit may specify items to include in your O&M manual. Even if you don't have an NOC permit, or your permit does not require a manual, Ecology recommends you create and maintain one to track compliance, health, and safety issues.

Air O&M manuals usually contain:

- Normal operating parameters for all emission units (such as spray guns and spray booths).
- Manuals and specification sheets for all emission units and other equipment (spray guns, spray booths, vacuum sanders, oil/water separators, and compressors).
- Preventative maintenance schedules and records.
- A log of the maintenance performed (filter changes, repairs, and pressure-drop readings for manometers for the previous 24 months).
- A description of the monitoring procedures and schedule.
- Procedures for emergencies and abnormal control-system operation.
- Names of employees trained to properly operate and maintain equipment.

Regional air agency contacts:

Puget Sound Clean Air Agency
(King, Kitsap, Pierce, Snohomish Counties)
1904 Third Avenue, Suite 105
Seattle, WA 98101-2038
Telephone: (206) 343-8800 or (800) 552-3565
Fax: (206) 343-7522; E-mail: pscleanair.org
Internet: http://www.pscleanair.org

Northwest Clean Air Agency
(Island, Skagit, Whatcom Counties)
1600 South Second Street
Mount Vernon, WA 98273-5202
Telephone: (360) 428-1617
Telephone: (800) 622-4627 (Island & Whatcom)
Fax: (360) 428-1620; E-mail: info@nwcleanair.org
Internet: http://www.nwcleanair.org

Spokane Regional Clean Air Agency
1101 West College Avenue, Suite 403
Spokane, WA 99201
Telephone: (509) 477-4727
Fax: (509) 477-6828;
E-mail: publicinfo@spokanecleanair.org
Internet: http://www.spokanecleanair.org/

Olympic Region Clean Air Agency *(Clallam, Grays Harbor, Jefferson, Mason, Pacific, Thurston Counties)*
2940 B Limited Lane NW
Olympia WA 98502
Telephone: (360) 586-1044 or (800) 422-5623
Fax: (360) 491-6308; E-mail: info@orcaa.org
Internet: http://www.orcaa.org

Dust Control

Dust from sanding can be a problem for worker health, work quality, indoor and outdoor air pollution, and stormwater run-off. Auto body shops must control dust to comply with regulations.

Sandblasting

All abrasive blasting operations are regulated by Washington State.

- Abrasive blasting shall be performed inside a booth, hangar, or cabinet designed to capture the blast grit or overspray.
- Outdoor blasting of structures or items too large to be reasonably handled indoors shall employ control measures such as curtailment during windy periods and enclosure of the area being blasted with tarps.
- Outdoor blasting shall be performed with either steel shot or an abrasive containing less than one percent (by mass) which would pass through a No. 200 sieve.

Dust control measures

Practice these dust-control measures:

- Use a vacuum sander, or at least vacuum the dust as soon as possible after sanding.
- Sand in designated, controlled areas.
- Watch your feet; keep dust in controlled areas by not tracking it.
- Keep dust out of floor drains, gutters, streets, and storm drains.
- Regularly clean up dust that could contaminate stormwater, and pre-treat water that has been contaminated with dust before it goes to the storm sewer.
- Lower waste-disposal costs by keeping filler dust out of wash waters, paint waste, and sludge.
- Manage dust as dangerous waste or test before disposal to show that it is not dangerous.

Top Pollution Prevention Tips for Air Quality

Below are the top prevention tips to better reduce or eliminate air pollution from your processes. If the EnviroStars Program is available in your jurisdiction and you would like to participate, these may be helpful ideas to use for your improvement goals. (See the *EnviroStars* section on page 73 for more information.)

- ❑ **Make sure the paint filters are properly seated** in spray booths and prep stations and routinely checked for proper fit.
- ❑ **Use a local-exhaust-ventilation vacuum sander with as much airflow as is available**. For more information www.cdc.gov/niosh/sanding.html.

Use less solvent and paint

- ❑ **Reduce solvent evaporation**—an enclosed gun-cleaning machine re-circulates cleaning solvent.
- ❑ **Designate one gun for paint and another gun for primer**—Use virgin solvent to clean the paint gun, and then use the waste virgin solvent from the paint gun to clean the primer gun. This will reduce the total amount of solvent used for cleaning *and* reduce labor time involved with gun cleaning.
- ❑ **Clean up spills of solvent-containing materials immediately**—this prevents volatile compounds from evaporating into the air.
- ❑ **Clean equipment first with dirty solvent before final cleaning with virgin solvent**—for initial cleaning, the quality of the solvent does not need to be as high. Use a higher quality virgin solvent problem spots. This will reduce the total amount of solvent used.

- ❑ **Clean equipment immediately**—cleaning the spray equipment immediately reduces the problem of waste paint build-up and hardening in the lines and guns. This will reduce the total amount of solvent used for cleaning.
- ❑ **If you must use solvents, then optimize the current preparation process to minimize evaporation**:
  - Consolidate multiple steps into one step.
  - Reduce contamination of parts prior to cleaning.
  - Extend solvent "change-out" schedule with vendor.
  - Locate cleaning tanks away from heat sources.
  - Use less toxic solvent.
  - Keep tanks closed and well sealed.
  - Where practical, use a layer of water or wax to reduce evaporation.
  - Drain cleaned parts to return solvent to tank.
  - Turn off exhaust when not in use.
- ❑ **Use gun cleaning equipment that uses pressurized pulses of solvent and compressed air** — this new technology will reduce the total amount of solvent needed for cleaning.
- ❑ **Switch to alternative solvents:**
  - Water-based
  - Semi-water
  - Citrus
  - Soy-based

Ask a Toxics Reduction Engineer from Ecology for more options on solvent reduction. See *Appendix A* on page 77 for contact information.

- ❑ **Train employees to calculate precise mixing ratios of thinner to paint**—this will minimize the use of solvent.
- ❑ **Use hot spray method**—Heat decreases the viscosity of the coating, producing similar results to adding a solvent thinner, reducing the need for thinners.
- ❑ **Paint light colors before dark colors**—less gun cleaning is necessary when switching from light to dark colors.
- ❑ **Paint small parts together on a rack prior to coating**—this increases the transfer efficiency when coating is applied.
- ❑ **Spray edges and corners of parts first** so that the overspray hits uncoated areas of the part.
- ❑ **Minimize the use of any aerosol sprays**, especially those containing hazardous materials.
- ❑ Check out the **Emission Reduction Calculator** at the EPA *Design for the Environment* Web site to see how all of your changes reduce your emissions. You will find many useful tips there too. www.epa.gov/dfe/pubs/projects/auto/.

Management and Records Contents

Management and Records

Managing an auto body shop includes managing the health and safety of your employees and your neighborhood. This section offers tips to stay safe and within the law.

Careful records show good housekeeping. If your records are unavailable or out of date, then you are not in compliance.

Emergency Planning

Different emergency procedures are required depending on your generator status. (See *Generator Status and Reporting* on page 11 for more information on determining your generator status.

Small quantity generator requirements

Small quantity generators are not required to follow these guidelines, but it is wise to prepare for emergencies. At a minimum, Ecology recommends:

- Post the current name and telephone number of the emergency coordinator.
- Post the location of fire extinguishers, spill control materials, and fire alarm.
- Post the telephone number of the fire department, unless the facility has a direct alarm.

Medium and large quantity generator requirements

Auto body shops that generate 220 pounds of dangerous waste or more (medium and large quantity generators) are required to follow Emergency Planning Procedures. More information on this requirement is available at www.ecy.wa.gov/biblio/9112n.html.

Emergency planning procedures

Medium and large quantity generators must educate employees on the proper waste handling and emergency procedures that are relevant to their job responsibilities. They must also appoint an emergency coordinator. There must be at least one employee on the premises or on call who is responsible for coordinating emergency response measures. It is also a good idea to have at least one back-up emergency coordinator.

Medium and large quantity generators must also post an emergency directory near all phones and intercoms.

The directory must contain:

- The name and telephone number (office and home) of the emergency coordinator and his or her backup(s).
- A description and location of emergency equipment, such as fire extinguishers, spill control materials, and alarm systems.
- The telephone number of the fire department, unless the shop has a direct alarm.

Emergency coordinators should be familiar with the:

- Operations and activities on-site.
- Location and hazardous properties of all the wastes handled.
- Location of all records.
- Layout of the facility (inside and outside).
- Emergency agreements made with state or local authorities.
- Outside emergency response contractors.

Large quantity generators must also prepare a Written Contingency Plan.

Spill Prevention and Reporting

Even small spills and drips can cause water pollution. In auto body shops, spills must be cleaned up immediately. Spills or discharges of any size that may pose a threat to human health or to the environment must be reported within one hour, then cleaned up and disposed of so that they do not pollute later.

Reporting spills

Generally, a spill should be reported when:

- Anyone, as a result of exposure, seeks or requires medical attention or examination.
- There is a potential for the material to enter water, including surface water (such as streams, lakes, rivers, and ponds), ground water, storm drains, or ditches.
- Illness, injury, stress, or death of fish, wildlife, or domestic animals occurs.
- There is a release to the air in sufficient quantity or concentration to harm people, animals, or plants.
- A spill occurs to soil that cannot be quickly controlled, contained, and cleaned up.

A spill inside of a building or secondary containment area must be reported if it escapes the confining area, such as through a doorway, crack, joint, or drain, or if it threatens human health or the environment.

Ecology regional spill reporting phone numbers

Northwest Regional Office in Bellevue:
(for Island, King, Kitsap, San Juan, Skagit, Snohomish & Whatcom counties)

(425) 649-7000
TDD: (425) 649-4259

Southwest Regional Office in Olympia:
(for Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston & Wahkiakum counties)

(360) 407-6300
TDD: (360) 407-6306

Central Regional Office in Yakima
(for Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan & Yakima counties)

(509) 575-2490
TDD: (509) 454-7673

Eastern Regional Office in Spokane
(for Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla & Whitman counties)

(509) 329-3400
TDD: (509) 329-3569

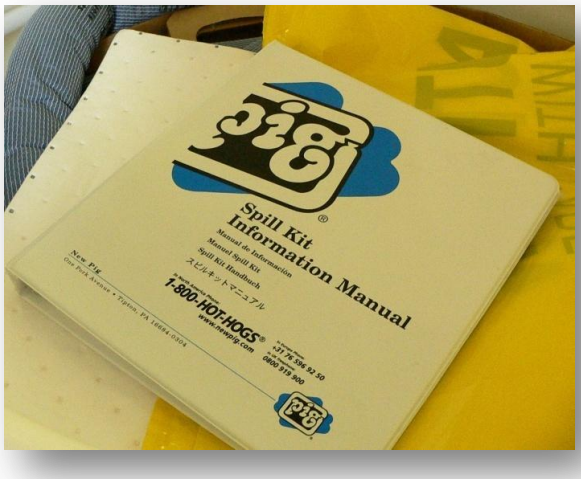
For a template of a sign to post important numbers, see *Appendix F* on page 107.

Spill plans

The generator status (small, medium, or large quantity generator) determines whether a spill plan is required. Small quantity generators (SQGs) are not required to have a written plan, but it is always a good idea to plan for emergencies.

Medium and large quantity generators need to have a written response plan for a spill. This plan should include:

- A description of the facility, including the owner's name and address.
- The nature of the activity at the facility.
- The general types of chemicals used or stored at the facility.



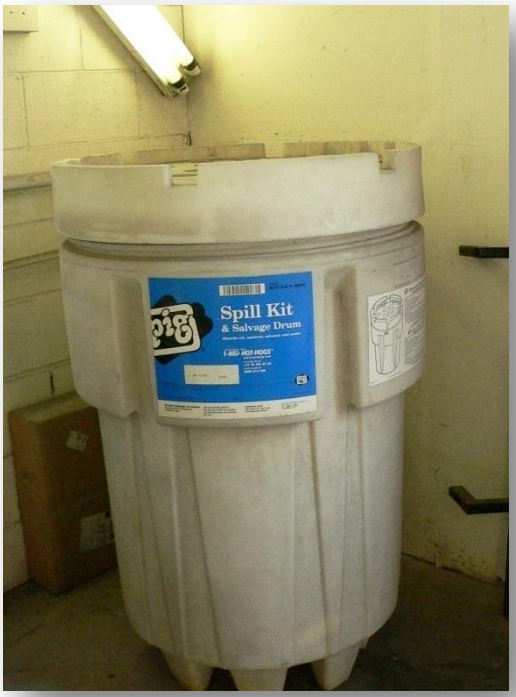
- A site plan showing the location of storage areas for chemicals, the locations of storm drains, the areas draining to them, and the location and description of any devices to stop spills from leaving the site such as positive control valves.
- Cleanup procedures.
- Notification procedures to be used in the event of a spill, such as notifying key personnel and agencies such as Ecology, local fire department, Washington State Patrol, and the local sewer authority.
- The name of the designated person with overall spill cleanup and notification responsibility.

Prepare a summary of the plan and post it at appropriate points in the building, identifying spill-cleanup coordinators, location of clean-up kits, and phone numbers of regulatory agencies to be contacted in the event of a spill. Train key personnel in the implementation of the plan, and update the plan regularly.

Spill cleanup kits

If materials are used that could contaminate the environment, then spill-cleanup materials must be kept on-site. Spill kits should be stored in a manner that allows rapid access and use by employees.

The law does not specify what should be in a spill-cleanup kit. However, Ecology recommends using a drum or other container appropriate for the type and quantities of chemical liquids stored at the facility and marked with the words "Spill Kit." If the container is made of an appropriate material, like high-density polyethylene, polypropylene, or polyethylene-sheet-lined steel, it can hold the kit items and be used to hold recovered wastes as well.



Inside the container, place:

- Polyethylene or equivalent disposal bags.
- Safety gloves/clothes/equipment.
- Shovels or other soil-removal equipment.
- Small bucket of loose absorbent material (floor sweep or kitty litter). Use a small plastic garbage bag to line the bottom of the bucket.

- Absorbent pads and oil containment booms, stored in an impervious container.
- Granular or powdered materials for neutralizing acid or alkaline liquids.

On the outside of the lid, print "Spill response directions on other side of lid." Laminate and attach a 5" x 7" emergency card to the inside of the container lid. Suggested emergency card text is in the box below. Write in the Ecology Spills contact number from page 41.

Emergency Card

- Shut off the spill source and contain it, if possible and safe to do so. Do not allow any untrained or unprotected personnel to go into a spill area.
- Call 911 in the event of injury, fire, explosion, or other emergency. Give your name, the company's name, the incident location, material(s) spilled, number/types of injuries, real/potential threats to life and property, and a return telephone number.
- Locate and inform senior or trained staff at your facility who can follow through on a spill. Take proper steps to correctly contain, cleanup, and/or properly dispose of wastes.

Department of Ecology
Spill-reporting Number_____

Fire Department_____

Local Sewer Authority_____

WA State Patrol_____

Other things to remember

- Place a spill-cleanup kit wherever there is a high potential for a spill, such as in fueling areas.
- Absorbent should be packaged in small bags for easy use and small drums should be available for storage of absorbent and/or used absorbent.
- Do not use emulsifiers for cleanup unless an appropriate disposal method for the resulting oily wastewater is implemented. **Absorbent material may not be washed down a floor drain or storm sewer**.

For more information or if you have questions on spill preparedness, prevention, and response please visit Ecology's Spills Program on the Internet at www.ecy.wa.gov/programs/spills/spills.html.

Recordkeeping

This section of the manual covers areas of recordkeeping that may need clarification, including:

- Operation and Maintenance (O&M) manual.
- Inspection logs.
- Suggested maintenance schedules.
- Some plans and records required by the Department of Labor and Industries (L&I).

At the end of this section is a **Recordkeeping Checklist** of records and retention requirements.

Operation and Maintenance manual

An Operation and Maintenance (O & M) manual may include equipment manuals, maintenance schedules and logs, and monitoring records. Some local jurisdictions may also require specific items. See *Appendix A* on page 77 for local contact information. *Appendix D* on page 91 contains sample inspection logs and other resources.

Suggested items for an O&M manual:

- Maintenance logs, filter changes, repairs, pressure-drop readings for manometers (keep for a minimum of 2 years).
- Preventative maintenance schedules and records.
- Normal operating instructions for all emission units, such as spray booths and guns.
- Manuals and specification sheets for all emission units and other equipment (spray guns, spray booths, vacuum sanders, oil/water separators, compressors).
- A description of the monitoring procedures and schedule.
- What to do in case of abnormal control system operation.
- Names of employees trained to properly operate and maintain equipment.
- Other monitoring and recordkeeping that may be specified by an air permit.
- Maintenance records for catch basins and water treatment devices.

Suggested maintenance schedules

Logs from these inspections should be kept for a minimum of three years.

Daily:

- ✓ Check for unusual occurrences in process.
- ✓ Observe control panel indicators and gauges.
- ✓ Check compressed air pressure.
- ✓ Check filters.

Weekly:

- ✓ Inspect equipment and perform needed maintenance.
- ✓ Check compressed-air lines.

Monthly:

- ✓ Inspect fans for corrosion and material buildup.
- ✓ Inspect oil/water separators and other water treatment devices—clean out as necessary. Pay particular attention to maintenance of devices in high-use areas like vehicle wash bays.

Quarterly:

- ✓ Inspect paint and solvents for damaged or leaking containers.

Semi-annually:

- ✓ Clean out catch basins in fall and spring.

Annually:

- ✓ Check fan belts.
- ✓ Check all water treatment devices. Check manufacturer's instructions.

Inspection logs

Visual inspection reports of waste storage and water treatment devices should include:

- Scope of the inspection.
- Who conducted the inspection.
- The date(s) of the inspection.
- Major observations relating to the performance of devices.
- Actions taken to correct problems.

These reports should be kept for at least three years. *Appendix E*, on page 93 contains some sample inspection logs to use or modify for your needs.

Health and Safety

The Washington State Department of Labor and Industries (L&I) is responsible for employee safety and health regulations. Some of the laws that employers must follow are found at WAC 296-800 (Core Rules), 296-841 (Airborne Contaminants) and 296-842 (Respirators). The main requirements are described below.

A comprehensive description of the L&I rules can be found at www.lni.wa.gov/LawRule. Ecology urges you to read the guidance directly from the L&I Web site where the rules summarized below are presented in detail. The WACs listed can be easily found on the Internet. They are written in plain and clear English and are a valuable source of information.

Auto body shops may request free and confidential safety and health technical assistance from L&I's Division of Occupational Safety and Health (DOSH) Consultation Program. The DOSH Consultation Program is designed to help increase safety awareness, prevent accidents, and manage workers' compensation costs. Representatives can help you interpret and meet the safety and health rules outlined here.

Businesses cannot be fined in the course of a DOSH Consultation. However, any serious hazards must be corrected. Contact a consultant or learn more about the DOSH Safety & Health Consultation Program, at www.lni.wa.gov/Safety/Basics/Assistance/Consultation.

L&I has more information about health and safety issues in the collision-repair industry on their Web site at www.lni.wa.gov/Safety/Research/Collision/Default.asp.

Accident Prevention Program

The law requires businesses to have an Accident Prevention Program (APP). This is a written plan to prevent accidents, illnesses, and injuries on the job. Employers need to establish, supervise, and enforce an APP that works in practice. For examples of an APP go to www.lni.wa.gov/Safety/Basics/Programs/Accident.

Employers must:

- Develop a formal, written Accident Prevention Program that includes:
  - Safety orientation. Document the topics covered and dates of the orientation.
  - A safety and health committee. This is only required for shops with ten or more employees. Include names and contact information of committee members.

- Develop, supervise, implement and enforce safety-and-health training programs.
  - This includes on-the-job training for safe use of toxic materials, machine tools, and operation of utility systems.
  - Make sure the APP is effective in practice.

The APP law can be found at WAC 296-800-140.

Chemical Hazard Communication Plan

Shop owners are responsible for informing and training employees about the hazards of chemicals they may be exposed to during normal working conditions, or in foreseeable emergencies.

To comply with this responsibility, businesses are required by law to have an Employer Chemical Hazard Communication Plan. A Chemical Hazard Communication Plan includes worker training, material safety data sheets (MSDS), and container labeling.

Employers must:

- Develop, implement, maintain, and make available a written Chemical Hazard Communication Program.
- Include other employers in multi-employer workplaces.
- Identify and list all the hazardous chemicals present in the workplace.
- Maintain MSDSs for each hazardous chemical used.
- Make sure that MSDSs are readily accessible to the employees and inspectors.
- Properly label containers holding hazardous chemicals (See the *Dangerous Waste* section for more information on this requirement.)
- Inform and train employees about hazardous chemicals in the workplace they may be exposed to during normal working conditions or in foreseeable emergencies.
- Follow rules for handling chemicals in factory-sealed containers (as in WAC 296-800-170(40)). They include:
  - Make sure labels on incoming containers of hazardous chemicals are in place and readable.
  - Retain MSDSs.
  - Make MSDSs accessible to each work shift.
  - Inform and train employees how to protect themselves in case of a chemical spill or leak from a factory-sealed container.

These requirements are found in WAC 296-800-170.

Respiratory protection requirements

Shop owners are responsible for protecting their employees from exposure to respiratory hazards in the workplace by identifying and controlling the hazards.

Employers must:

- Identify and evaluate respiratory hazards.
- Control employee exposures.
- Use respirators when hazards have not been completely removed.
- Notify employees who are or may be exposed to respiratory hazards.

These requirements are found in WAC 296-841-200.

Respiratory Protection Program

Shop owners and employers are responsible for developing and implementing a written Respiratory Protection Program by using the procedures and the questionnaire provided in WAC 296-842-220. The program must provide clear instruction for safe and reliable respirator use.

Employers must:

- Use the medical questionnaire for medical evaluations.
- Follow the fit-testing procedures for tight-fitting respirators.
- Follow procedures established for cleaning and disinfecting respirators.
- Follow procedures established for seal-checking respirators.
- Keep respirator program records up-to-date.

L&I contacts

If you have questions about information in this manual or L&I regulations, contact:

Mark Soltow, Industrial Hygiene Consultation Supervisor
Department of Labor & Industries - DOSH
315 5th Avenue South Suite 200
Seattle, WA 98104-2607
(206) 515-2837 (voice)
(206) 515-2830 (fax)
solt235@lni.wa.gov

For an **on-site technical consultation** with a DOSH (WISHA) specialist, contact your local regional L&I office. The most current numbers for the offices can be found at www.lni.wa.gov/Safety/Basics/Assistance/Consultation/consultants.asp

Region	Counties	Consultant	Phone Number	E-mail
1	Island, San Juan , Skagit, Snohomish, Whatcom	James Norris	(425) 290-1431	nork235@lni.wa.gov
2	King	Mark Soltow or Kelly Monahan	(206) 515-2837 or (206) 835-1146	solt235@lni.wa.gov or dres235@lni.wa.gov
3	Clallam, Jefferson, Kitsap, Pierce	Patrick Mahaney	(253) 596-3917	maha235@lni.wa.gov
4	Clark Cowlitz, Grays Harbor, Klickitat, Lewis, Mason, Pacific, Skamania, Thurston, Wahkiakum	Robert Cooley	(360) 902-5472	coor235@lni.wa.gov
5	Adams (west county), Benton, Chelan, Columbia, Douglas, Franklin, Grant, Kittitas, Okanogan, Walla Walla, Yakima	John McFadden	(509) 886-6570	mcfj235@lni.wa.gov
6	Adams (east county), Asotin, Ferry, Garfield, Lincoln, Pend Orielle, Spokane, Stevens, Whitman	Russell Poage	(509) 324-2543	poag235@lni.wa.gov

Table 5. Recordkeeping Checklist

	Type of Record	Who's Required	Retain	Location (fill in where it is located in your shop)
Department of Ecology				
Ecology	**Dangerous Waste Records**			
	Dangerous Waste Reports	Businesses with a RCRA site ID #	5 yrs min.	"Turbo Waste" electronic filing is recommended.
	RCRA site ID form	MQGs, LQGs, some SQGs	5 yrs min.	"Turbo Waste" electronic filing is recommended.
	Proof of waste types, such as test reports (paint-booth-filter designation, etc.)	Everyone	5 yrs min.	
	Shipping papers	Everyone	5 yrs min.	
	Uniform hazardous waste manifests	MQGs, LQGs	5 yrs min.	
	Bills of lading or other shipping receipts	SQGs	5 yrs min.	
	Spill response plan	MQGs, LQGs	Ongoing	
	Training records on spill plans	MQGs, LQGs	One year	
	Emergency plan	MQGs, LQGs	Ongoing	
	Training records on emergency preparedness	MQGs, LQGs	One year	
	Dangerous waste accumulation area inspection logs	Everyone	One year	
	Solvent recycling (still) logs	Everyone with a still	One year	
	Water Quality Records			
	Water treatment device inspection and maintenance logs (oil/water separators, catch basin cleanout, etc.)	Everyone with a catch basin on-site	3 years	
Regional Air Agency				
Air Agencies	Notice of Construction (NOC) permit	Everyone unless grandfathered	Forever	
	Spray-booth maintenance logs	May be required by NOC permit	5 yrs min.	
	Spray-booth pressure-gauge reading logs	May be required by NOC permit	Specified in NOC permit. Likely 5 yrs	
	O&M Manual	May be required by NOC permit	Active ongoing	
Environmental Protection Agency Area Source Rules				
EPA	Area source rule initial notification	Everyone by 1/11/2010	5 years	
	Area source rules notification of compliance	Everyone by 3/11/2011	5 years	
	Area source rule notification of changes reports	Everyone as changes occur	5 years	
	Area source rule deviation and corrective action documentation, if any		5 years	
	Spray-booth filter efficiency documentation		For life of filters	
	Spray-gun transfer efficiency documentation or HVLP spec sheet		For life of equipment	
	Training records for painters		5 years	
	Methylene-chloride reduction plan		Active/ongoing if required	
	MeCI usage records		5 years	
Environmental Protection Agency Area Source Rules				
L&I	MSDS sheets (including MeCI for EPA)	Everyone	Ongoing (30+ yrs)	
	Accident Prevention Program (APP)	Everyone	Active/Ongoing	
	Chemical Hazard Communication Plan	Everyone	Active/Ongoing	
	Respiratory Protection Program	Everyone	Active/Ongoing	

Top pollution Prevention Tips for Management and Records

Below are the top prevention tips for ways to better reduce or eliminate pollution from your processes. If the EnviroStars program is available in your jurisdiction and you would like to participate, these may be helpful ideas to use for your improvement goals. (See the *EnviroStars* section on page 73 for more information.)

- ❑ Inspect parts before coating, possibly eliminating coating rejected parts.
- ❑ Maintain records of all activities related to controlling or generating pollutants, such as training, materials purchased, materials use and disposal, and maintenance performed.
- ❑ Set up an inventory system in the shop to prevent products from going out of date and to prevent theft.
- ❑ **Work with vendors and jobbers to get less toxic products**. If they don't carry them, ask! Create the demand.
  - Contact suppliers to find out if they supply safer coatings.
  - Contact suppliers to find out if they supply less-volatile gun-cleaning solvent or paint thinner.
  - Surf the Internet for information on alternative coatings.
  - Calculate the theoretical cost savings of switching to an alternative coating Include the true cost, including capital costs, operating costs, and the cost of the coating (on a solids basis) per part, must be calculated.
- ❑ **Conserve energy**. Less energy generated equals less air pollution generated and money saved on utility bills. Try these ideas:
  - Replace old compressors.
  - Switch to fluorescent lights.
  - Purchase Energy-Star-rated appliances.
  - Install energy-efficient windows.
  - Activate energy-saving features on equipment.
  - Request an energy audit from your local utility or an EnviroStars partner.
  - Adjust heating and cooling habits and use modern systems.
  - Install skylights.
  - Tune-up the building (for example, calibrate thermostats, upgrade lighting).
  - Insulate the roof and windows.
  - Upgrade fan system.
- ❑ Implement and educate employees on basic conservation practices. Participation makes a plan work.

- ❑ Reduce emissions from transportation associated with the business (employee commuting, business travel, delivery of goods and services). Reducing miles traveled is one of the most important actions we can take to protect air quality. Emissions from vehicles represent the largest source of air pollution in our region.
- ❑ Develop idle-free policies. Idling gives zero miles per gallon with decreased air quality.
- ❑ Develop "No Idle Zones."
- ❑ Post "No-Idle Zone" signs near loading bays and other locations at the worksite where idling commonly occurs.
- ❑ Implement a no-idle policy for fleet vehicles.
- ❑ Encourage employees not to idle in their personal vehicles.
- ❑ Initiate a Commute Trip Reduction Program — encourage employees to drive less by walking, biking, sharing a ride, riding the bus, or adopting alternative work hours.

Water Quality Contents

General Requirements

Agencies and businesses work together to protect water quality

In Washington State, Ecology, EPA, and local governments work together to protect water quality. Central to our water quality regulations is the requirement to use all known, available, and reasonable technologies, along with best management practices (BMPs), to prevent release of pollutants into waters of the state. The objective of this policy is to help meet state Water Quality Standards and protect the beneficial uses of state waters. This section offers tools to help understand the requirements, and apply BMPs to meet the requirements to protect water quality.

The tools offered include BMPs from Ecology's stormwater management manuals for eastern and western Washington. BMPs are activities, practices, and procedures that help treat, prevent, or reduce the discharge of pollutants to surface and ground waters, and storm sewers. BMPs target control of pollution from municipal and industrial sources. Washington's source control and runoff treatment BMPs may be found by accessing Ecology's stormwater manuals at www.ecy.wa.gov/programs/wq/stormwater/tech.html. There are also BMPs for underground injection-control (UIC) wells and discharges to the sanitary sewer. These are discussed below, with links as appropriate.

Local jurisdictions also have water quality requirements and BMPs that may apply to your business too. There may be local codes for water quality, stormwater, utility, building, sanitation, land use, environment, and health and safety. (See *Appendix A* on page 77 for local contact information.)

Included in this section are discussions on water quality topics of special importance to the auto body industry—specifically, drains and vehicle washing. Drains are given special consideration because facilities need to determine where drains go in order to know what water quality rules and BMPs apply to them.

Vehicle washing is given special consideration because wash water is one of the most significant contributors of water pollution from the auto body industry. Once water is used to wash vehicles and clean shops, it becomes contaminated and is harmful to aquatic life and water quality.

See the *Glossary* on page 70 for definitions of *industrial wastewater, stormwater, industrial stormwater, surface water, ground water, and sanitary sewer*.

Drains

Know where all drains go

To know if you comply with federal, state, and local water quality laws, you must know where all indoor and outdoor drains discharge. Check with your local sewer district, building department (records), or check with a plumber or an environmental consultant to determine where shop wastewater goes. (See *Appendix A* on page 77, for local agency and vendor contact information.)

There are only two legal options for the discharge of industrial wastewater, including vehicle wash water:

1. To the sanitary sewer, under the guidance of the local sewer authority or Ecology; or
2. To a storage tank that is pumped out regularly for off-site treatment.

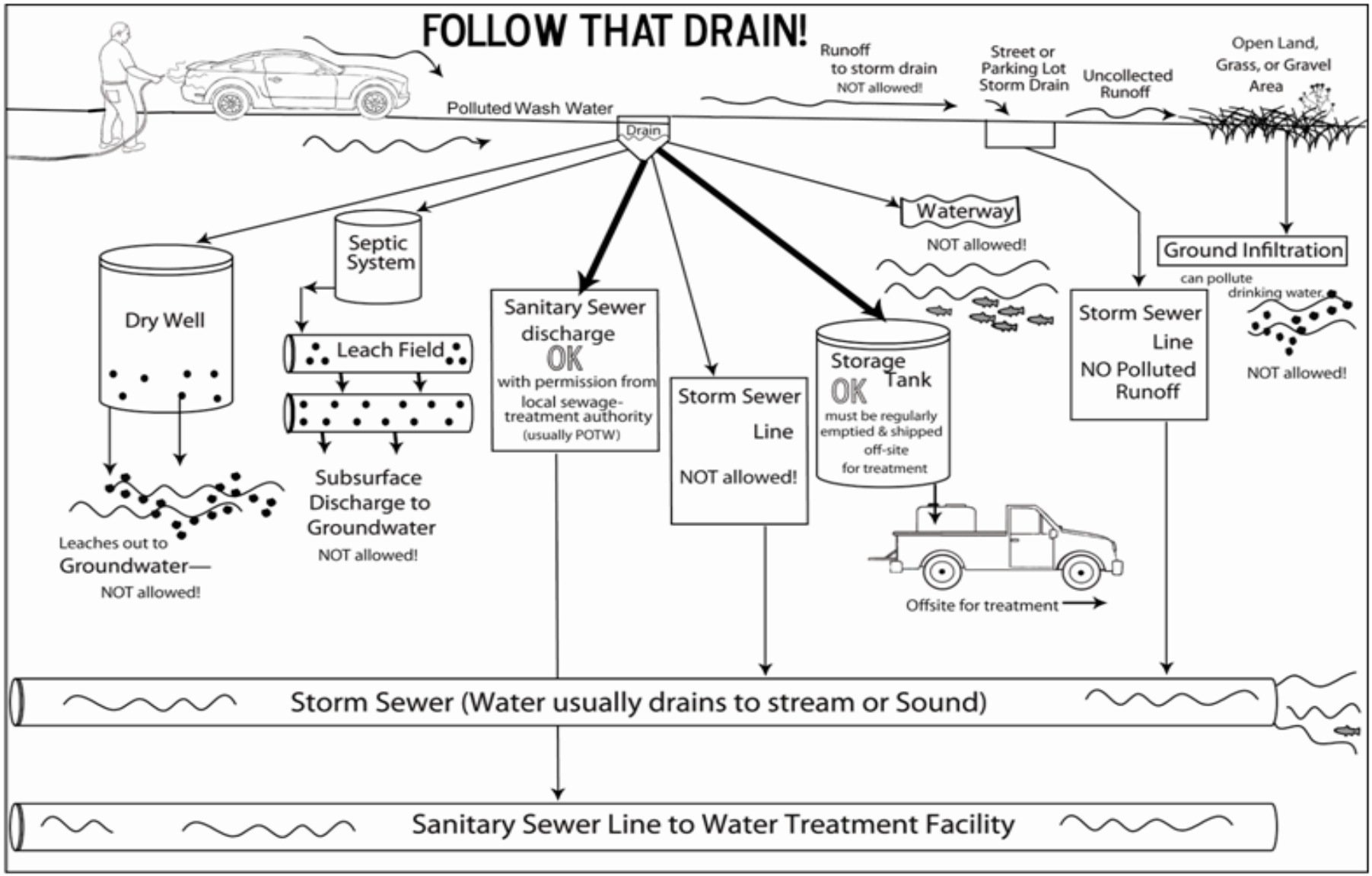
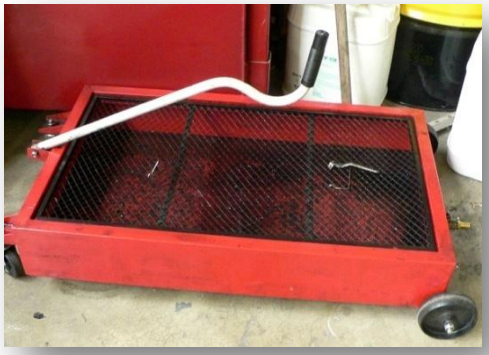


Figure 1: Use this figure to identify where drains may discharge. Note if a discharge is not allowed and correct the problem.

General BMPs for floor drains



- Identify where all floor drains discharge.
- Use drip pans or similar devices to collect vehicle fluids before they reach the floor drain system.
- Install berms or other forms of secondary containment around areas where chemical products (like paints, thinners, strippers, cleaners, and automotive fluids) are stored to prevent leaks from entering floor drains.
- Do not put fluids like oil, solvents, paints, or chemicals into a floor drain.
- Install screens in working drains to prevent solids from entering the floor drain system.
- Develop and implement a maintenance schedule for inspecting and cleaning the floor drain system.
- Prepare and train for emergencies. Have a plan in place to quickly cleanup a spill before it escapes.
- Use dry cleaning methods such as sweeping instead of water cleanup.
- Do not hose down your work area. This practice generates large quantities of contaminated wash water.
- Cap, plug, or seal floor drains that are not serving a useful and lawful purpose.
- Consider sealing your shop floor with epoxy or other suitable sealant.

Where Can Drains Lead?

If drains discharge industrial wastewater or vehicle wash water to the storm system or surface water:

Only stormwater should go to the storm drain! Discharge of industrial wastewater to surface water, ground water, or the storm system is illegal in Washington State. **If drains discharge industrial process wastewater or vehicle wash water to surface or ground water or the storm system (storm drains or street), the shop must immediately stop the discharge.**

If indoor floor drains are plumbed incorrectly and lead to the storm system, it will be necessary to redirect these drains to the sanitary sewer, or a storage tank for collection and proper disposal to the sanitary sewer. Get permission from the local sewer authority or follow state guidance if Ecology is your pretreatment control authority. (See *If drains go to sanitary sewer*, page 60.)

If a drain discharging industrial wastewater or vehicle wash water is not being redirected away from a connection to surface or ground water, or to the storm system, or is not being collected for disposal to the sanitary sewer, it results in an illicit connection and it will be necessary to seal the drain. A sealed floor drain means that no water can enter the drain and leave the premises. Proper sealing may include sealing the hole with a commercially available drain seal, cap, plug, epoxy, or Portland cement. Drains that are not serving a useful and lawful purpose should be sealed.

Outdoor storm drains also need to be protected. Catch basins are part of the stormwater drainage system and allow sediment to settle out of stormwater. Oil/grit and oil/water separators are designed to remove hydrocarbons and sediment from parking-lot runoff before going to an infiltration device or storm drain. For a discussion on these and other types of protective and treatment devices, see *Drainage system- catch basins and treatment devices* on page 67.

If storm drains discharge *significant* amounts of industrial stormwater to the storm system or surface water:

Auto body shops that discharge significant amounts of industrial stormwater to surface water or a stormwater conveyance system may be required to obtain an NPDES Industrial Stormwater Permit. Auto body shops are not included on the list of industrial facilities generally required to obtain coverage under an Industrial Stormwater Permit. However, a shop will be required to apply for permit coverage if its storage areas or parking lots discharge significant amounts of industrial stormwater to the storm system or surface waters during storm events.

BMPs to prevent this type of pollution include installing berms and redirecting polluted stormwater away from storm drains, and collecting contaminated stormwater for disposal to sanitary sewer. Ecology's guidance on *Stormwater Discharges Associated with Industrial Activity* may be found at www.ecy.wa.gov/biblio/9938.html.

To see if your shop is required to obtain an NPDES Industrial Stormwater permit, please go to www.ecy.wa.gov/programs/wq/stormwater/industrial/index.html.

If drains go to the sanitary sewer:

Discharging to the sanitary sewer is the preferred option for disposing of industrial wastewater and vehicle wash water. All sanitary water, industrial wastewater, and vehicle wash water from the shop should go to the sanitary sewer. Contact the local sewer authority to ensure that existing connections are approved and that industrial wastewater is treatable at their facility. Connections to sanitary sewer may require a permit or written authorization, and may require pretreatment. In many cases, the local sewer authority or Ecology will require an oil/water separator (sometimes called a gas trap or grease trap) on the drain to remove oily waste from wastewater before it enters the sewer.

If it is too costly to redirect industrial waste runoff to the sanitary sewer, or if vehicle washing is minimal, a storage tank may be a good solution. Pump out the tank regularly to a sanitary sewer connection (with permission), or to a tanker vehicle for proper sanitary disposal. (See *Appendix A* on page 77, for local sewer district contact information.*)*

It is also important to determine if oil or solvents are being discharged to floor drains that go to the sanitary sewer. Oil and solvents are regulated dangerous wastes and must be removed and properly disposed. If the floor drain system is connected to the city sewer system, federal and state laws prohibit the discharge of oil or flammable solvents. *(*See the discussion on oil/water separators under *Drainage system- catch basins and treatment devices* on page 67.*)*

As with illicit connections to storm drains, if oil and solvent contaminants cannot be kept out of the floor drains, then they must be sealed. A sealed floor drain means that no water can enter the drain and leave the premises. Proper sealing may include sealing the hole with a commercially available drain seal, cap, plug, epoxy, or Portland cement. Drains that are not serving a useful and lawful purpose should be sealed.

If you do not have a municipal sewer authority:

The largest municipalities encompass roughly 75 percent of all sewered areas in Washington State, but there is still an approximate 25 percent chance your shop is not one of these delegated areas. In that case, Ecology is the "Pretreatment Control Authority" responsible for making decisions about whether your discharge requires a permit, and if so, what conditions you will need to meet.

Where Ecology is the pretreatment control authority, adhering to these BMPs may exempt you from the requirement to obtain a State Waste Discharge Permit for discharge to the municipal sanitary sewer:

- Conduct all repair and vehicle washing inside, or on covered and bermed wash pads. Overhead cover must be designed to allow a minimal amount of rain drift (which may require side panels).
- Route all wastewater from vehicle washing through a grit chamber to remove solids.

- Route wastewater from vehicle washing and repair activities through an effective* oil/water separator.
- Use only soaps compatible with your oil/water separator and minimize their use.
- Keep chemicals, solvents, oils, tank heels, dust, and shavings out of the sanitary sewer.
- Use a service that is permitted to launder shop towels to clean your soiled shop towels and clothes.
- Ensure all sources of storm water are separated from flows that go to the sanitary sewer.
- Make a schematic that shows where all buried pipes on the entire site are (inside and outside).
- Minimize discharges to the sewer by routinely using dry absorbents for spills.
- Seal floor drains to prevent inadvertent slug discharges of oil or other substances incompatible with the sewer system (tight-sealing plugs may be used if wet cleanup is not often necessary).
- Contact your sewer provider, let them know you are following these BMPs, and get a name and phone number to call in the event of a spill. (See *Appendix A* on page 77, for contact information.) If they use a survey form, complete and sign it for the municipality.
- Inspect your operations and treatment systems weekly to confirm the above BMPs are followed and keep records of your inspection and maintenance efforts for a minimum of three years.
- (Optional) Install and use a recycling-type vehicle wash system.

**An effective oil/water separator must be properly sized and maintained. Ecology has a process for reviewing your design to ensure that it will work properly. This process involves developing an engineering report, plans and specifications, and an Operations and Maintenance manual. When this is done, you should have a good assurance that your oil/water separator will effectively remove enough oil to discharge the effluent safely to the sanitary sewer even in areas where the sewer system has a low limit for total petroleum hydrocarbons (TPH). (See Appendix A on page 77, for local sewer authority contact information.)*

If drains go to a septic system:

Industrial wastewater or vehicle wash water must not go to a septic system. Septic systems are specifically designed to handle sanitary wastes from sinks, showers, and toilets, but they cannot treat dangerous substances. In addition, detergents used in vehicle washing can destroy septic systems.

Floor drains should never be routed to the septic system and process chemicals should never be flushed down sinks or toilets. Get permission from the local sewer authority to route water to the sanitary sewer. If it is not possible to route to the sanitary sewer, send water to a storage tank for off-site treatment and disposal. (See *Appendix A* on page 77, for local sewer authority contact information.)

If drains go to a dry well, injection well, or underground injection-control well:

If vehicle wash water or other industrial wastewater contaminated with process chemicals, oil, or solvents is currently going to any type of dry well, it must be redirected to the sanitary sewer. Floor drains should never be routed to a UIC well. Stormwater that has become contaminated is also not allowed to drain to a drywell.

Owners or operators of underground injection control (UIC) wells, dry wells, infiltration trenches with perforated pipe, and certain drain fields already in use or being built need to register with Ecology. Visit the UIC Web page for registration information at www.ecy.wa.gov/programs/wq/grndwtr/uic/index.html. UIC wells only have to be registered once. (See *Appendix A* on page 77, for Ecology contact information.)

Ecology's *Guidance for UIC Wells that Manage Stormwater*, publication 05-10-067, can be found at www.ecy.wa.gov/pubs/0510067.pdf. The guidance provides design and treatment BMPs for drywells used along roads and parking areas, and roof runoff.

If drains discharge to the ground:

The only way to discharge any industrial wastewater to the ground legally is to obtain a State Waste Discharge permit from Ecology. This is a difficult and expensive permitting process. Any discharge to the ground will likely require oil removal and pre-treatment to comply with Ecology's Ground Water Quality Standards. **This is not a preferred option because of the large volume of wash water most auto body shops produce**. For more information please refer to Ecology's guidance at www.ecy.wa.gov/pubs/9602.pdf.

If drains discharge to a (closed) storage tank:

If it is too costly to redirect polluted runoff to the sanitary sewer, a storage tank may be a solution. The tank will have to be regularly pumped out and water sent to a sanitary sewer connection (with permission), or transported off-site for appropriate treatment and disposal.

Vehicle Washing Can Pollute

Water used to wash vehicles and clean the shop can be contaminated with toxic soaps, detergents, heavy metals, oil, and grease. Wash water must be controlled to avoid polluting.

Use wash areas and wash pads

Wash vehicles in a paved and covered wash area. Reusing the water in a closed-loop water recycling system is preferred. If you are discharging wash water to a shop floor drain, check with your local jurisdiction to see if you comply with local regulations. Most municipalities no longer permit floor drains in the automotive industry.

If a closed-loop system isn't feasible, or if floor drains are used in wash bays, route the water for pre-treatment to a grit chamber, then to an oil/water separator, and then discharge to a sanitary sewer (with permission), or dead-end sump. The wash water may also be routed by a berm and collected with a wet vacuum or pump for proper disposal. *See the note under *Soaps and Detergents* on impacts to oil-water separators from detergents in wash water, and the use of 'quick release' alternatives on page 64.

All vehicle wash water and industrial wastewater needs to be directed to a sanitary sewer or dead-end sump, or collected for proper disposal. It should not be directed to a storm drain!

Designated wash areas must be well marked with signs indicating where and how washing must be done. Ideally, this area will be inside a building or under cover to keep out uncontaminated stormwater. If not, you will need permission from your local sewer authority to discharge contaminated stormwater and you may have to pay more for sewer service due to the higher flows.

Cover vehicle wash areas

In the past, stormwater sources were hooked up to the sanitary sewer. Now, most sewer districts are getting too much stormwater making it difficult to treat sewage properly when it rains. This pollutes our rivers and streams. Accordingly, Washington prohibits discharge of stormwater, and other direct inflow sources, to a sanitary sewer unless there are no feasible alternatives. Covering wash areas is typically feasible.

Many cities base hookup fees on flow. A 20' by 40' pad during a 3-inch rainstorm generates as much wastewater as six houses in a day. If the hookup fee for a house is $10,000, the charge to serve this size pad may be six times this amount if the pad is not covered!

The wash area should be dedicated to vehicle washing or at least must be kept clean. Oil changes and other engine maintenance must not be conducted in the designated washing area.

Vehicle washing outside

If washing must occur outside, the washing pad must:

- Be paved with Portland cement.
- Be covered and bermed to prevent co-mingling with stormwater.
- Be sloped for wash-water collection.
- Be equipped with oil/water and grit separators to capture oil, grease, and particulates.
- Have a valve to close when washing is not occurring, to prevent stormwater from entering the system, unless stormwater cannot enter in any quantity because of the berm and cover.
- Wash water must be recycled, sent to sanitary sewer or a dead-end sump, or collected for proper disposal.

Closed-loop water recycling systems

A closed-loop system uses recycled water and has zero discharge. However, closed-loop water recycling systems may use chemicals to help remove solids from the waste. Systems that use chemicals generate chemical sludge that must be handled safely and disposed of in a manner that will not pollute waters of the state.

In addition, the closed-loop recycling systems may have a reservoir to store the recycled water for reuse. It may be necessary to discard the reservoir water periodically as oil, grease, and other pollutants accumulate. The contaminated reservoir water should be discharged to a municipal sewage system, only after prior authorization from the local sewer authority, or Ecology as the pretreatment control authority. For more information on wash water disposal options, see *If drains go to the sanitary sewer* on page 60 and *Vehicle washing can pollute* on page 62.

Soaps and detergents

All soaps can be harmful to aquatic organisms, including those labeled as “biodegradable," "non-toxic," or "environmentally friendly." Use the mildest detergent that is effective. Read the Material Safety Data Sheet (MSDS) for each cleaner.*

Yes!

- biodegradable
- water-based
- pH 6.0 to 10.5 (at the point of use)

Avoid:

- nonylphenols
- nonylphenol ethoxylates
- petroleum-based
- aromatic hydrocarbons
- halogenated compounds
- phenolics
- phosphates

It is important to note:
The emulsifying agents from detergents in wash water will ruin the effectiveness of an oil/water separator. Many companies now make "quick release" or "separator-friendly" detergents. Check with your vendor and local sewer district for their recommendation.

Indoor and Outdoor BMPs

Good housekeeping prevents pollution at its source. The following indoor and outdoor BMPs will help you meet water quality requirements and prevent water pollution.

Leaking vehicles

- Do not perform vehicle maintenance outside.
- Drain leaking vehicles immediately, or use drip pans.
- Spot-clean drips and spills.
- Dispose of spill cleanup materials quickly and appropriately, so they don't contaminate stormwater later.
- Conduct all maintenance and repair of vehicles and equipment inside a building or other covered, impervious containment area. If outside, this area should be covered, bermed, and sloped to collect runoff of contaminated stormwater, and prevent the co-mingling of uncontaminated stormwater with contaminants.

Waste storage

Leaks and spills during waste handling and storage are a significant source of industrial stormwater pollution. There are specific rules for dangerous waste storage in the *Dangerous Waste* section.

- Place tight-fitting lids on all containers.
- Cover dumpsters, or keep them under a cover such as a lean-to, to prevent the entry of stormwater. Keep dumpster lids closed.
- Replace or repair leaking dumpsters. Install waterproof dumpster liners.
- Place drip pans beneath all container taps and at all potential drip and spill locations.
- Enclose and/or cover all pollutant sources. Examples would include enclosing sources within a building or other enclosure, covering storage and working areas with a roof, and covering with a temporary tarp.
- Use secondary containment. Build or buy a containment system, such as a system of dikes, berms, or commercial spill-containment pallets that can hold leaks and spills. A secondary containment system must be able to hold ten percent of the total volume of all containers with liquid waste, or the volume of the largest container, whichever is greater. Waste stored inside a building may use the building itself as the secondary containment. If this option is chosen, prevent any spills from entering drains or escaping the building.

Stockpiles and metal

Contact of outside bulk materials with stormwater can cause toxic leachate, as well as loss of stored materials.

- Cover materials stored outside to prevent run-on and discharge of leachate and suspended solids.
- Provide impervious secondary containment with berms, dikes, and other forms of secondary containment.

Materials that would need to be covered or have secondary containment include:

- Acids
- Antifreeze
- Automotive parts
- Batteries
- Caustic bases
- Landscaping materials
- Metals
- Paints/coatings
- Pesticides/herbicides/fertilizers
- Petroleum/oils (e.g., hydraulic, cutting, motor oil)
- Plastics
- Recycling
- Solid waste
- Solvents
- Tires

Sanding dust

- Do not conduct spraying, blasting, or sanding activities where wind may blow paint into water.
- Sweep or vacuum dust right away.
- Keep doors and windows closed to prevent sanding dust from escaping outside.
- Be careful not to track the dust outside on your shoes or vehicles.
- Use a vacuum sander.

Parking lots

Public and commercial parking lots are sources of toxic hydrocarbons and other organic compounds, oil and grease, metals (zinc, copper, etc.), and sediment deposited by vehicles.

- Provide appropriate BMPs for stormwater runoff from parking lots (see note below).
- Sweep (rather than hose) paved areas regularly to remove accumulated pollutants and prevent contamination of stormwater.
- Properly maintain catch basins and treatment devices.

Note: Consider routing runoff through an oil/grit separator then through an oil/water separator, which can more efficiently remove hydrocarbons and sediment from parking-lot runoff before going to an infiltration device or storm drain network. Filter fabric can help capture sediment so catch basins are not overwhelmed.

If discharging to a UIC well, Ecology publication, *Guidance for UIC Wells that Manage Stormwater* explains when solids removal and oil control treatment BMPs are required. This guidance may be found at www.ecy.wa.gov/pubs/050067.pdf.

The building

- Stormwater runoff from roofs and sides of buildings can pollute. Galvanized steel used in roofing and other applications leaches zinc into stormwater. Paint or seal galvanized steel to prevent this. Peeling and chipping paint can also pollute stormwater.
- If a roof/building pollution source is identified, implement appropriate control measures such as air-pollution control equipment, changing building materials, or changing processes or operations. If replacing the pollution source is not possible, capturing the runoff and directing it to the sanitary sewer is an alternative option.

The drainage system—catch basins and treatment devices

- Oil and grease, hydrocarbons, debris, heavy metals, sediments, and contaminated water can be found in catch basins, oil and water separators, settling basins, etc.
- Maintain and clean out debris, sediments, and oil from stormwater collection, conveyance, and treatment systems for proper operation.
- Inspect and clean catch basins, treatment devices, and conveyance systems, as needed, and determine whether improvements are necessary.
- Promptly repair any deterioration that threatens the structural integrity of the catch basin or treatment system. This may include replacement of clean-out grates, catch-basin lids, and rock in emergency spillways.

Catch basins

Catch basins are part of the stormwater drainage system. They allow sediment to settle out of stormwater. Catch basins are not an approved treatment BMP, but they do collect small amounts of sediment and debris. They are most often located below the grating in storm drains. Those located on private property are the responsibility of the landowner.

Routine maintenance is required to keep catch basins functioning properly. If the catch basin becomes full, debris may accumulate in the outlet and drains will flood. If catch basins are not cleaned frequently, contaminants may reach concentrations where the sludge is considered dangerous waste.

Dangerous waste sludge requires disposal, which can be expensive. Locate any catch basins, and be sure to maintain them. **Keep a maintenance log for all maintenance performed on catch basins and water treatment devices.**

Catch-basin maintenance

- *Cleaning catch basins at least twice a year*, in the spring and late fall. They should also be cleaned as required after spills. Oil and grease, hydrocarbons, debris, heavy metals, sediments and contaminated water are found in catch basins and other water treatment devices, such as oil and water separators and settling basins.
- *Monitoring sediment levels in the catch basin*, they should be cleaned out before deposits fill 60 percent of the area below the outlet pipe. When catch basins are about 60 percent full of sediment, they stop removing sediments. In no case, should there be less than six inches of clearance from the debris surface to the invert of the lowest pipe. If they fill up, the outlet pipe will become plugged and water will not drain.
- *Posting warning signs*: "Dump No Waste—Drains to Stream" (or other water body), or stencil yellow fish beside stormwater drains. Check local requirements.
- *Using filter fabric* to protect catch basins from dust, grit, and other pollutants. Filter fabric may also be useful in a parking or storage lot to capture small bits of debris and paint chips shed from wrecked vehicles. The fabric needs to be changed regularly to remain effective.

Water Treatment Devices

Permitting authorities, including Ecology and the local sewer district, may require pre-treatment of wastewater. Runoff from parking lots is of particular concern, and treatments such as oil/grit separators, oil/water separators, and catch basin filters are recommended.

Treatment devices common to auto body shops generally separate or absorb oil and include:

- Oil-water separators
- Oil-grit separators
- Oil-absorbent materials
- Filtration systems

If there are no routine flows from the area, another option to catch small spills is a spill control (SC) unit. However, it is not capable of separating oil from water. It must be pumped out to an approved oil/water separator, or hauled off-site by a licensed waste hauler if there is a spill.

For additional guidance on water treatment devices, refer to Ecology's stormwater management manuals for eastern and western Washington, specifically the volumes on *Runoff Treatment BMPs*. The manuals are available online at www.ecy.wa.gov/programs/wq/stormwater/tech.html.

Oil/water separators

An oil-water separator removes solids and oil from your wastewater and collects them for proper disposal. The rest of the wastewater is discharged to the sewer. It is important to maintain an oil/water separator so that it functions properly. Check weekly to see if the sludge in the bottom or the floating oily waste needs to be removed and disposed. These wastes may need to be managed either as a dangerous waste or as an oily waste, depending on the content.

There are different types of oil-water separators. These are recommended:

- American Petroleum Institute (API) unit.
- Coalescing Plate (CP) separator unit.
- Skimmer type units (which pull an absorbent loop through a vault and squeeze the oil into an oil-holding vessel).

Oil/water separators need to be inspected weekly. Treatment devices need regular maintenance to remain effective. Be especially diligent before and after big storms, and at the beginning and end of the runoff season.

Note: Detergents in vehicle wash water can make an oil/water separator ineffective. Oil/water separators cannot capture the oil mixed with soap and the soap may actually free up oil previously captured. Many companies now make "quick release" or "separator-friendly" detergents. Check with your vendor and local sewer district for their recommendation.

Oil/grit separators

Oil/grit separators are designed to remove hydrocarbons and sediment from parking lot runoff before going to an infiltration device or storm drain network. The oil/grit separator is essentially three concrete chambers modified to separate grit, oil, and sediment before it passes to a storm drain. Oil/grit separators are most effective when used in combination with an oil/water separator.

Oil/absorbent materials

Oil absorbents are designed to absorb hydrocarbons, but not water. The absorbents come in many shapes and configurations to meet different needs. These can be included in your spill cleanup kit in granular form or as a long flexible tube, called a boom, to stop the flow of material across the ground.

A drain receiving oil-contaminated water can be protected by either placing absorbents in the basin or a boom surrounding the basin. Using filter fabric can also help prevent sediment and particles from clogging up treatment devices.

Filtration systems

Filtration systems can separate oil and solids from water. They are useful for reuse of vehicle wash water in a closed-loop (or zero discharge) system, and for pretreatment of water before discharge to sanitary sewer. These systems require scheduled maintenance. Check the owner's manual.

Glossary —Definitions Used in this Section

Industrial wastewater

The water or liquid that carries waste **from industrial or commercial processes**. Industrial wastewater includes vehicle wash water. Auto body shops may not discharge industrial wastewater to surface water, ground water, or storm drains. Industrial wastewater must be discharged to the sanitary sewer.

Stormwater

Runoff during and following precipitation and snowmelt events. Stormwater that co-mingles with process water becomes industrial wastewater and must be discharged to the sanitary sewer.

Industrial stormwater

Runoff **from storage areas** associated with manufacturing, processing, or raw materials at industrial plants. For many industries, facilities that discharge industrial stormwater to surface water or a stormwater conveyance are required to apply for coverage under the National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Stormwater Discharges Associated with Industrial Activities (Industrial Stormwater Permit). ***Auto body shops are generally not required to have coverage under an NPDES Industrial Stormwater permit, unless they are significant contributors of industrial stormwater.***

Surface water

An open body of water, such as water collecting on the ground or in a conveyance system, stream, river, lake, sea or ocean.

Ground water

The supply of fresh water found beneath the surface of the land or surface water body, usually in aquifers, which supply wells and springs.

Sanitary sewer

The sewer that carries residential and industrial wastewater to a treatment plant for treatment; as distinct from the storm sewer that carries stormwater. Connections to the sanitary sewer may require a permit or written authorization from the local sewer district. Local sewer authorities may specify limits and treatments before they grant permission. (See *Appendix A* on page 77, for a list of local sewer districts and their contact information.)

Management's Role in Preventing Pollution

- Have a spill cleanup plan. (See the *Management and Records* section for more information on spill plans.)
- Report all significant spills of oil or dangerous substances.
- Train employees on what to do in the event of a spill.
- Train employees how to operate and maintain any treatment devices (such as oil/water separators).
- Make a schedule for the maintenance and inspection of treatment devices.
- Retain maintenance records and inspection reports of treatment devices for three years.

Top Pollution Prevention Tips to Protect Water Quality

Below are the top two prevention tips for ways to better reduce or eliminate water pollution from your processes. If the EnviroStars program is available in your jurisdiction and you would like to participate, the ideas below may be helpful to use for your improvement goals. (See *EnviroStars* below for more information.)

❑ **Install a closed-loop water recycling system for vehicle washing.**

- A closed-loop system uses recycled water and has zero discharge. For shops that do a lot of vehicle washing, this would be the most successful way to prevent the generation of water pollution by your business.

❑ **Survey and map your drains**

- Prepare a map of each area as it is to be surveyed. Show the known location of storm drains, sanitary sewers, and permitted and un-permitted discharges. Aerial photos may be useful. Check records, such as piping schematics to identify known side sewer connections, and show these on the map. Consider using smoke, dye or chemical analysis tests to detect connections between two conveyance systems (e.g., industrial process water and stormwater).
- Conduct a field survey of buildings, particularly older buildings, and other industrial areas to locate all storm drains. Note where these join the public storm drain(s).
- During non-stormwater conditions, inspect each storm drain for non-stormwater discharges. Record the locations of all non-stormwater discharges and eliminate or treat them. Include all permitted discharges.
- Compare the observed locations of connections with the information on the map and revise the map accordingly. Note connections that are inconsistent with the field survey and correct all illicit connections.
- Provide this map to your sewer provider and include it with any permit application.

Be an EnviroStar

The EnviroStars Program is a business certification program that recognizes a company's efforts to reduce pollution, hazardous materials, and waste, using a 2- to 5-Star rating scale—helping the public to identify these environmentally responsible businesses. Over 600 EnviroStars-certified businesses can be found in 60 cities throughout the state.

Auto body/collision repair shops have a unique opportunity as part of Ecology's Auto body Pilot to self-certify into the 3-Star level of EnviroStars in King, Kitsap, Pierce, Whatcom, and Jefferson counties. Simply complete the full self-certification form and an EnviroStars goal page.

EnviroStars businesses receive a certificate, a window decal and listings in the *EnviroStars Green Business Directory* and on the EnviroStars Web site at www.envirostars.org. For more information, go to the Web site, call the EnviroStars representative listed in the back of this workbook in *Appendix A* (page 77), or check with your trade association.

EnviroStars businesses say:

"New customers call me up out of the blue after seeing me in the EnviroStars directory."
Mike West,
Southtowne Auto Rebuild

"*Environmental awareness is everyone's responsibility; if we don't do it, who will? Working with EnviroStars is a very good place to get started*."
Jim Kurle,
Auto Body Experts

"*My business is operating more efficiently and I have realized a cost savings through process changes, purchasing less hazardous substitutes, and reducing disposal fees.*"
Keith Russell,
DME Auto Service

Puget Sound-area residents say:

More and more area residents look for environmental performance when making purchasing decisions. A valuable bottom-line benefit of EnviroStars certification is free marketing and promotions.

The conscientious-consumer market is exploding, and people are looking for ways to live "greener." The EnviroStars logo helps these potential customers and the local community to identify businesses they want to support. Current customers' loyalty is reinforced, and employee retention may very well improve.

Self-certifying at a 3-star level

To qualify as 3-Star EnviroStar follow these simple steps:

1. Complete the **Self-Certification Checklist** for the **Local Source Control Auto body Pilot Program**.
   - Complete a **Return-to-Compliance Plan** if a question indicates you should.
   - Be able to answer "Yes" to all of the starred questions.

2. Fill out the **EnviroStars Auto Body Application and Goal Sheet** included in the Self-Certification Packet if you are in a participating county.

3. Send in all of the materials to the Department of Ecology by March 31, 2009.
   Washington State Department of Ecology
   PO Box 47600
   Olympia, WA 98504-7600

Apply for the 4- and 5-star levels

Some businesses are ready to take their commitment to the next level. Join them.

While 3-Star businesses can self-certify, a 4-Star business must demonstrate that it is reducing all the waste it can, training employees, and letting customers and vendors know about environmental efforts.

A 5-Star business demonstrates leadership activities that spread environmentally responsible practices in the community and/or profession. To be considered for a 4- or 5-Star rating, go to the EnviroStars Web site and complete the additional sections of the worksheet at www.envirostars.org/forms/EnviroStarsAutobodyworksheet.pdf. Be sure to provide detailed examples.

Is your business EnviroStars-certified yet? People want to know, so send in the self-certification and EnviroStars goal today!

Appendix A: Contact Information

Regional Air Agencies

Puget Sound Clean Air Agency
(King, Kitsap, Pierce, Snohomish Counties)
1904 Third Avenue, Suite 105
Seattle, WA 98101-2038
Telephone: (206) 343-8800 or (800) 552-3565
Fax: (206) 343-7522; E-mail: pscleanair.org
Internet: http://www.pscleanair.org

Northwest Clean Air Agency
(Island, Skagit, Whatcom Counties)
1600 South Second Street
Mount Vernon, WA 98273-5202
Telephone: (360) 428-1617
Telephone: (800) 622-4627 (Island & Whatcom)
Fax: (360) 428-1620; E-mail: info@nwcleanair.org
Internet: http://www.nwcleanair.org

Spokane Regional Clean Air Agency
(Spokane County)
1101 West College Ave, Suite 403.
Spokane, WA 99201
Telephone: (509) 477-4727
Fax: (509) 477-6828; E-mail:
publicinfo@spokanecleanair.org
Internet: http://www.spokanecleanair.org/

Olympic Region Clean Air Agency
(Clallam, Grays Harbor, Jefferson, Mason, Pacific, Thurston Counties)
2940 B Limited Lane NW
Olympia WA 98502
Telephone: (360) 586-1044 or (800) 422-5623
Fax: (360) 491-6308; E-mail: info@orcaa.org
Internet: http://www.orcaa.org

Department of Ecology

Headquarters

Alison Chamberlin
Environmental Results Program
Department of Ecology
PO Box 47660
Olympia WA 98504-7660
(360) 407-7337 or (360) 407-6700

Regional Offices

Northwest Regional Office
(Island, King, Kitsap, San Juan, Skagit, Snohomish & Whatcom counties)

3190 160th Ave SE
Bellevue WA 98008-5452
(425)649-7000

Southwest Regional Office
(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston & Wahkiakum counties)

PO Box 47775
Olympia WA 98504-7555
(360) 407-6300

Central Regional Office
(Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan & Yakima counties)

15 W Yakima Ave #200
Yakima WA 98902-3452
(509) 575-2490

Eastern Regional Office
(Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla & Whitman counties)

N 4601 Monroe
Spokane WA 99205-1295
(509) 329-3400

Environmental Protection Agency (EPA) Region 10

For questions on the notifications for the new federal air rules, contact:
Heather Valdez
(206) 553-6220
valdez.heather@epa.gov
Mail notifications to:
Environmental Protection Agency (EPA) Region 10:
EPA Region 10
1200 6th Ave, Suite 900, AWT-107
Seattle WA, 98101

EnviroStars Representatives

County	Contact Person	Mailing address	E-mail	Phone
Jefferson	Anita Hicklin Jefferson County Environmental Health Department	615 Sheridan Street Port Townsend, WA 98368	ahicklin@co.jefferson .wa.us	(360) 385-9444
King	Laurel Tomchick King County Department of Natural Resources & Parks	130 Nickerson St #100 Seattle, WA 98109	Laurel.Tomchick@ki ngcounty.gov	(206) 263-3063
Kitsap	Niels Nicolaisen Kitsap County Health District	345 6th St #300 Bremerton, WA 98337-1866	nicoln@health.co.kits ap.wa.us	(360) 337-5604
Pierce	Lindsay Spencer Tacoma-Pierce County Health Department	3629 South D St (MS:307) Tacoma, WA 98418-6813	lspencer@tpchd.org	(253) 798-4783
Whatcom	Alice Cords Whatcom County Disposal of Toxics Program/Envirostars	3505 Airport Drive Bellingham, WA 98226	acords@pscnow.com	(360) 380-4640

Labor and Industries

For a technical phone questions regarding information in this technical assistance manual/checklist and L&I regulations, contact:

Mark Soltow, Industrial Hygiene Consultation Supervisor
Division of Occupational Safety & Health
Department of Labor & Industries
315 5th Avenue South Suite 200
Seattle, WA 98104-2607
(206) 515-2837 (voice)
(206) 515-2830 (fax)
solt235@lni.wa.gov

For an **on-site technical consultation** with a DOSH (WISHA) specialist, contact your local, regional L&I office. The most current numbers for the offices can be found at http://www.lni.wa.gov/Safety/Basics/Assistance/Consultation/consultants.asp

Regions	Counties	Consultant	Phone Number	Email
Region 1	Island, San Juan , Skagit, Snohomish, Whatcom	James Norris	(425) 290-1431	nork235@lni.wa.gov
Region 2	King	Mark Soltow Kelly Monahan	(206) 515-2837 or (206) 835-1146	solt235@lni.wa.gov or dres235@lni.wa.gov
Region 3	Clallam, Jefferson, Kitsap, Pierce	Patrick Mahaney	(253) 596-3917	maha235@lni.wa.gov
Region 4	Clark Cowlitz, Grays Harbor, Klickitat, Lewis, Mason, Pacific, Skamania, Thurston, Wahkiakum	Robert Cooley	(360) 902-5472	coor235@lni.wa.gov
Region 5	Adams (west county), Benton, Chelan, Columbia, Douglas, Franklin, Grant, Kittitas, Okanogan, Walla Walla, Yakima	John McFadden	(509) 886-6570	mcfj235@lni.wa.gov
Region 6	Adams (east county), Asotin, Ferry, Garfield, Lincoln, Pend Orielle, Spokane, Stevens, Whitman	Russell Poage	(509) 324-2543	poag235@lni.wa.gov

Washington State Office of Regulatory Assistance

Permit Assistance Center at the Washington State Office of Regulatory Assistance (ORA)
ORA can help you figure out all the permits your business needs and how to apply:
9 a.m. to 4 p.m., Monday through Friday.
(360) 407-7037 or (800) 917-0043
E-mail: help@ora.wa.gov.

Wastewater Treatment Plants (POTWs)

City of Everett
3200 Cedar Street
Everett WA 98201
Jeff Kerwin
Telephone: (425) 257-8241
Fax: (425) 257-8243
E-mail: jkerwin@ci.everett.wa.us
Internet: www.ci.everett.wa.us

City of Lynnwood
19100 44th Avenue W
Lynnwood WA 98036
Ron Hammons
Telephone: (425) 670-5221
E-mail: rhammons@ci.lynnwood.wa.us

City of Puyallup
1602 18th Street NW
Puyallup WA 98371
Eric Rogers
Telephone: (253) 841-5523
Fax: (253) 841-5468
E-mail: ericr@ci.uyallup.wa.us
Internet: www.cityofpuyallup.org

City of Richland
840 Northgate Drive
Richland WA 99352
Toby Billings
Telephone: (509) 942-7485
Fax:
E-mail: tbillings@ci.richland.wa.us
Internet: www.ci.richland.wa.us

City of Spokane
City and County Co-permittees
808 W Spokane Falls Boulevard
Spokane WA 99201
Tim Pelton
Telephone: (509) 625-4661
Fax: (509) 625-6274
E-mail: tpelton@spokanecity.org
Internet: www.spokanecity.org

City of Tacoma
#1 Central, #3 North plants
2201 Portland Avenue
Tacoma WA 98421
Allen Aplin
Telephone: (206) 502-2156
E-mail: aaplin@ci.tacoma.wa.us
Internet: www.cityoftacoma.org

City of Vancouver
Marine Park, Westside plants
4500 SE Columbia Way
Vancouver WA 98661
Frank Dick
Telephone: (360) 487-7179
Fax: (360) 487-7139
E-mail: frank.dick@ci.vancouver.wa.us
Internet: www.cityofvancouver.us

City of Yakima
129 North Second Street
Yakima WA 98901
Arlene Carter
Telephone: (509) 575-6077
Fax: (509) 576-6614
E-mail: acarter@ci.yakima.wa.us
Internet: www.ci.yakima.wa.us

Department of Ecology, Central Region
Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima counties
15 West Yakima Avenue Suite 200
Yakima WA 98902
Wallace Arnold
Telephone: (509) 457-7108
Fax: (509) 575-2809
E-mail: warn461@ecy.wa.gov
Internet: www.ecy.wa.gov

Department of Ecology, Eastern Region
Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pen Oreille, Spokane, Stevens, Walla Walla, Whitman counties
North 4601 Monroe
Spokane WA 99205
Scott Mallery
Telephone: (509) 329-3473
Fax: (509) 329-3570
E-mail: smal461@ecy.wa.gov
Internet: www.ecy.wa.gov

Department of Ecology, Northwest Region
Island, King, Kitsap, San Juan, Snohomish, and Whatcom counties
3190 160th Avenue SE
Bellevue WA 98008
Doug Knutson
Telephone: (425) 649-7025
Fax: (425) 649-7098
E-mail: dknu461@ecy.wa.gov
Internet: www.ecy.wa.gov

Department of Ecology, Southwest Region
300 Desmond Drive
Lacey WA 98503
Dave Knight
Telephone: (360) 407-6277
Fax: (360) 407-6305
E-mail: dakn461@ecy.wa.gov
Internet: www.ecy.wa.gov

King County
Vashon, Carnation, East Division (Renton), Brightwater, West Point plants
130 Nickerson Street Suite 200
Seattle WA 98109
Despina Strong
Telephone: (206) 263-3010
Fax: (206) 263-3001
E-mail: despina.strong@kingcounty.gov
Internet: http://dnr.metrokc.gov/wlr/indwaste/

LOTT Alliance
Lacey, Olympia, Tumwater, Thurston County
111 Market Street NE Suite 250
Olympia WA 98501
Ken Butti
Telephone: (360) 664-2333 (Ext. 1108)
E-mail: kenbutti@lottonline.org
Internet: www.lottonline.org

Pierce County Utilities Department
Chamber's Creek plant
1420 112th Street E
Tacoma WA 98445
Rob Lowe
Telephone: (253) 798-3001
Fax: (253) 798-3023
E-mail: rlow@co.pierce.wa.us
Internet: www.co.pierce.wa.us

Spokane County Utilities Department
City and County Co-permittees
1026 West Broadway Avenue
Spokane WA 99260
Dave Moss
Telephone: (509) 477-7268
Fax: (509) 477-4715
E-mail: dmoss@spokanecounty.org
Internet: www.spokanecounty.org

Links

US Department of Transportation is in charge of labeling for transport: www.phmsa.dot.gov.

Design for the Environment (DfE) has a lot of great information on pollution prevention: www.epa.gov/dfe/pubs/projects/auto/.

King County has a useful list of vendors on their Web site: www.govlink.org/hazwaste/business/wastedirectory/vendors.cfm.

Initial Notification form

Information Needed for Initial Notification

Paint Stripping and Miscellaneous Surface Coating Area Source Rule *(last updated March 26, 2008)*

40 CFR 63.11169 – 63.11180 Subpart HHHHHH

[This example format may be used to meet the Initial Notification requirements of Subpart HHHHHH; however, you are not required to use this format as long as you provide the information required by 40 CFR Section 63.11175(a).]

1. Company Name *(if applicable)*: _____

2. Information about the Owner and Operator:

a. Owner's Name and Title: _____

Owner's Street Address: _____

City: _____ ST: _____ Zip: _____

Owner's Telephone Number: _____

Owner's E-mail (if available): _____

Is the Operator the same person as the Owner? Yes ❑ No ❑

If the Operator information is different, please provide the following:

Attach a list with the same information for each additional operator.

b. Operator's Name and Title: _____

Operator's Street Address: _____

City: _____ ST: _____ Zip: _____

Operator's Telephone Number: _____

Operator's E-mail (if available): _____

Is there any other certifying company Official that will sign this form? Yes ❑ No ❑

c. Official's Name and Title: _____

Official's Street Address: _____

City: _____ ST: _____ Zip: _____

Official's Telephone Number: _____

Official's E-mail (if available): _____

3. Street Address (physical location) **of the affected source:**

Official's Street Address: _____

City: _____ ST: _____ Zip: _____

Are the compliance records located at the same location? Yes ❑ No ❑

If the location of the compliance records is different, please provide Street Address:

Street Address: _____

City: _____ ST: _____ Zip: _____

Is the source a motor vehicle or mobile equipment surface coating operation that repairs vehicles at the customer's location, rather than at a fixed location? Yes ❑ No ❑

4. Identification of Standard (*you must check this box*):

❑ Yes, I am subject to 40 CFR Part 63 Subpart HHHHHH, *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Source*; Final Rule

5. A brief description of the type of operation:

For surface coating operations:

a. I am a:

❑ Motor vehicle or mobile equipment surface coating operation

❑ Miscellaneous surface coating operation

b. Number of spray booths: _____

c. Number of preparation stations: _____

d. Number of painters usually employed: _____

For paint stripping operations:

a. Methods of paint stripping employed:
(check all that apply)

❑ Chemical
❑ Mechanical
❑ Other: *(please describe)*

b. Substrates stripped
(check all that apply)

❑ Wood
❑ Plastic
❑ Metal
❑ Other: *(please describe)*

6. Methylene Chloride (MeCl) used by paint stripping operations:

Do you plan to use more than one (1) ton of MeCl annually? Yes ❑ No ❑

7. Compliance status, *(please check one)*:

For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in 40 CFR 63.11173(a) through (d) of this subpart. For surface coating operations, the relevant requirements are specified in 40 CFR 63.11173(e) through (g) of this subpart.

❑ I am already in compliance with each of the relevant requirements.

❑ I will be in compliance with each of the relevant requirements by the compliance date:

- New Source (after January 9, 2008), compliance date is date of startup.
- New Source (after September 17, 2007 but before January 9, 2008), compliance date is January 9, 2008.
- Existing Source (before September 17, 2007), compliance date is January 10, 2011.

8. Certification of compliance status, *(you must check one)*:

Note: Initial startup is the first time equipment is brought online in a paint stripping or surface coating operation, and paint stripping or surface coating is first performed.

❑ I am a new source (initial startup was on or after January 9, 2008). Date: _____

❑ I am a new source (initial startup was after September 17, 2007 but before January 9, 2008). Date: _____

If your source is a new source, a responsible official, whose information is provided above, must certify by signing below that the source is in compliance with each of the relevant requirements of this subpart.

❑ I am an existing source (initial startup was before September 17, 2007). Date: _____

If your source is an existing source, a responsible official, whose information is provided above, may certify below that the source is already in compliance with each of the relevant requirements of this subpart or certification may be done by March 11, 2011 in the Notification of Compliance Status as specified in 40 CFR Section 63.11175(b).

For existing sources: ❑ I am certifying below. ❑ I will certify by March 11, 2011*.

**There is no need to sign below; you must sign a statement by March 11, 2011.*

I certify the truth, accuracy, and completeness of this notification. The source has complied with all the relevant standards of this subpart. This initial notification also serves as the notification of compliance status.

Signature of responsible official: _____
Owner / Operator *(circle one)*

Please print name also: _____

Submit Initial Notification to:

Office of Air Quality, Director
EPA Region X (Alaska, Idaho, Oregon, Washington)
1200 6th Avenue, Suite 900, AWT-107
Seattle, WA 98101

Appendix C: Training and Resources

Training: Community and Technical Colleges	
Bates Technical College www.bates.ctc.edu/	**Downtown Campus** 1101 S Yakima Avenue Tacoma WA 98405 (253) 680-7000 **Mohler Campus** 2320 S 19th Street Tacoma WA 98405 (253) 680-7700 **South Campus** 2201 S 78th Street Tacoma WA 98409 (253) 680-7400
Bellingham Technical College www.btc.ctc.edu/	328 Lindbergh Avenue Bellingham WA 98225 (360) 752-7000
Clover Park Technical College www.cptc.edu/index.asp	**Main Campus** 4500 Steilacoom Boulevard SW Lakewood WA 98499 (253) 589-5800 **South Hill Campus** 17214 110th Avenue E South Hill WA 98374 **Fort Lewis Campus** 14800 Murray Road SW Lakewood WA 98439 **Downtown Tacoma Campus** 1932 Pacific Avenue Tacoma WA 98402
Columbia Basin College www.columbiabasin.edu/	2600 N 20th Avenue Pasco WA 99301 (509)547-0511

Green River Community College www.greenriver.edu/	**Main Campus** 12401 SE 320th Street Auburn WA 98092-3622 Auburn (253) 833-9111 Eastside (206) 464-6133 Tacoma (253) 924-0180 TDD (253) 288-3359 **Enumclaw Campus** 1414 Griffin Avenue Enumclaw WA 98022 (253) 288-3400 **Kent Campus** 417 Ramsay Way, Suite 112 Kent WA 98032 (253) 856-9595
Lake Washington Technical College www.lwtc.edu/	11605 132nd Avenue NE Kirkland WA 98034-8506 (425) 739-8100
Renton Technical College www.rtc.edu/	3000 NE 4th Street Renton WA 98056-4195 (425) 235-2352
South Seattle Community College www.southseattle.edu/	6000 16th Avenue SW Seattle WA 98106 (206) 764-5300
Spokane Community College www.scc.spokane.edu/	MS 2150 1810 N Greene Street Spokane WA 99217-5399 (509) 533-7000
Walla Walla Community College www.wwcc.edu/cms/	500 Tausick Way Walla Walla WA 99362 (509) 522-2500 (877) 992-9922

Resources	
Automotive Service Excellence www.ase.com/	101 Blue Seal Drive SE, Suite 101 Leesburg VA 20175 (703) 669-6600 (888) ASE-TEST (273-8378)
Coordinating Committee for Automotive Repair (CCAR)	PO Box 26741 Overland Park KS 66225-6741 (888) GRN-LINK (475-5465)
EPA/Design for the Environment www.epa.gov/	1200 Pennsylvania Avenue NW Mail Code 7406-M Washington DC 20406
I-CAR www.I-car.com/	**Training Support Center** 5125 Trillium Boulevard Hoffman Estates IL 60192 (847) 590-1198 (800) 422-7872 Fax: (800) 590-1215 **Tech Centre and Fulfillment Centre** N 127 South Park Drive Appleton WI 54914 (920) 749-0444 (800) 832-4990 Fax: (920) 749-0336
Iowa Waste Reduction Center www.iwrc.org/	BCS Building, Suite 113 Cedar Falls IA 50614-0185 (319) 273-8905 Fax: (319) 273-6582
Pollution Prevention Resource Center www.pprc.org/	1402 Third Avenue, Suite 1420 Seattle WA 98101-2195 (206) 352-2050 Fax: (206) 352-2049
S/P2 – Safety and Pollution Prevention Training www.sp2.org/	PO Box 26741 Overland Park KS 66225-6741 (888) 772-3535 Fax: (800) 765-1615
Washington State Department of Labor and Industries www.lni.wa.gov/	7273 Linderson Way SW Tumwater WA 98501-5414 (360) 902-5800

Appendix D: Vendors and Contractors

Solvent Recyclers

Becca	(800) 655-5649	Solvent recycler and combination spray gun cleaner/recycler
CB Mills	(800) 522-7343	Manufacturer of solvent recovery systems, tank/drum washers, media mills, dispensing systems and custom metal tanks
CB Technologies	(800) 941-9484	Solvent recycler
Finish Thompson	(704) 846-2999	Solvent recycler
Herkules	(800) 444-4351	Paint spray gun washers
PRI Inc.	(800) 732-3793	Solvent Recycler
Omega Systems	(800) 361-1194	Solvent recycler, gun washers
Onsite Recycling Services	(651) 247-7414	Recycler, recycling gun washer
Safety-Kleen	(800) 669-5740	Recycler, recycling gun washer, automatic spray gun washer
Sidewinder	(702) 362-9432	Solvent recycler
Solvent Waste Mgmt	(800) 617-7602	Solvent recycler
System One	(800) 711-1414	Combination spray gun cleaner/recycler
Uni-ram	(800) 735-4331	Solvent recycler and combination spray gun cleaner/recycler

The Department of Ecology does not assume any liability for the accuracy or completeness of the information presented in this list. A listing of a firm does not constitute a recommendation. Manufacturers may contact Scott Lamb at the Washington State Department of Ecology at (425) 649-7268.

King County has a useful list of (statewide) vendors on their Web site for many services, consultants, and recycling options.
www.govlink.org/hazwaste/business/wastedirectory/vendors.cfm

Weekly Facility/Hazardous Waste Inspection Checklist

Inspection for the week of : _____

Hazardous Waste Accumulation Area

All drums and containers are in good condition. ❑ Yes ❑ No

Number of drums/containers **NOT** in good condition: _____

Corrective Action: Date completed: _____

No drums are leaking. ❑ Yes ❑ No

Number of drums leaking: _____

Corrective Action: Date completed: _____

All containers are closed. ❑ Yes ❑ No

Number of containers **NOT** closed: _____

Corrective Action: Date completed: _____

All drums and containers are marked with a hazardous waste label. ❑ Yes ❑ No

Number of unmarked drums/containers: _____

Corrective Action: Date completed: _____

All drums and containers are marked with a risk label, if appropriate. ❑ Yes ❑ No

Number of unmarked drums/containers: _____

Corrective Action: Date completed: _____

All drums and containers are marked with the accumulation start date. ❑ Yes ❑ No

Number of unmarked drums/containers: _____

Corrective Action: Date completed: _____

All drum/container labels are clearly visible and readable. ❑ Yes ❑ No

Number of drum/containers **NOT** visible and readable: _____

Corrective Action: Date completed: _____

All there drums/containers that are near or have exceeded the 90/180 day timeframe? ❑ Yes ❑ No

How many? _____

Corrective Action: Date completed: _____

There is 30 inches of aisle space between rows of containers. ❑ Yes ❑ No

Number of containers with less than 30 inches of aisle space: _____

Corrective Action: Date completed: _____

Secondary containment devices are dry and free of cracks or other failures. ❑ Yes ❑ No

Number **NOT** dry and free of cracks or other failures: _____

Corrective Action: Date completed: _____

Hazardous Waste Satellite Area #1

The drum/container is in good condition. ❑ Yes ❑ No

The drum/containers is **NOT** in good condition: _____

Corrective Action: Date completed: _____

The drum/container does not appear to be leaking. ❑ Yes ❑ No

Drum/container leaking: _____

Corrective Action: Date completed: _____

The drum/container is closed. ❑ Yes ❑ No

Drum/container is **NOT** closed: _____

Corrective Action: Date completed: _____

The drum/container is marked with a hazardous waste label. ❑ Yes ❑ No

Drum/container is unmarked: _____

Corrective Action: Date completed: _____

The drum/container is marked with a risk label, if appropriate. ❑ Yes ❑ No

Drum/container is unmarked: _____

Corrective Action: Date completed: _____

Hazardous Waste Satellite Area #2

The drum/container is in good condition. ❑ Yes ❑ No

The drum/containers is **NOT** in good condition: _____

Corrective Action: Date completed: _____

The drum/container does not appear to be leaking. ❑ Yes ❑ No

Drum/container leaking: _____

Corrective Action: Date completed: _____

The drum/container is closed. ❑ Yes ❑ No

Drum/container is **NOT** closed: _____

Corrective Action: Date completed: _____

The drum/container is marked with a hazardous waste label. ❑ Yes ❑ No

Drum/container is unmarked: _____

Corrective Action: Date completed: _____

Non-hazardous Solid Waste Collection and Disposal

Outside storage yards/areas should be swept free of dirt, debris, and trash at least weekly.

Day of last sweeping: _____

Corrective Action: Date completed:

Non-hazardous debris and trash should be disposed of weekly.

Day of last disposal: _____

Corrective Action: Date completed:

Surface Water/Ground Water Quality

Contamination, spills, and leaks in outside yards/areas must be absorbed and cleaned as soon as possible following the event.

Date of most recent event: _____

Corrective Action: Date completed:

Catch basin collection devices are to be removed and cleaned, or replaced on a periodic basis or as needed.

Date of removal/replacement/cleaning: _____

Locations:

Corrective Action: Date completed:

Sumps

Sumps must be clean and free of contamination, spills, leaks, and standing water.

Number of sumps not clean or free of contamination, spills, leaks, or standing water: _____

Corrective Action: Date completed: _____

Safety Equipment

Fire extinguishers must be charged.

Date of most recent charge: _____

Corrective Action: Date completed: _____

Spill kits are appropriately stocked.

Spill kit inventory inspection date: _____

Corrective Action: Date completed: _____

First aid cabinets are appropriately stocked.

First aid cabinet inventory inspection date: _____

Corrective Action: Date completed: _____

Emergency shower and eyewash station is functioning properly.

Station inspection date: _____

Corrective Action: Date completed: _____

Appropriate emergency communications are operating properly.

Inspection date: _____

Corrective Action: Date completed: _____

Emergency response information is posted near all communications devices.

Inspection date: _____

Corrective Action: Date completed: _____

Comments:
Describe the actions that you took to correct any deficiencies for items/areas not noted above and the date the actions were taken.

Print name:_____

Signature:_____

Date:_____ Time:_____

Spray Booth #1 & #2	AUTO BODY INSPECTION & PURCHASE LOG MONTH _____ YEAR _____

Spray Booths Daily Inspection Record
Intake & Exhaust Filters — Manometer Reading

Day	Booth #	Good Condition?	Filters Changed?	No Gaps?	Acceptable Range (-)	Initial
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

Weekly Inspection Record
Inspection Date

Check for the following					
VOC compliant coatings? (<6.0 lbs/gal)					
VOC containers closed?					
Only HVLP guns used?					
All priming & painting done in booth?					

Monthly Maintenance Record

Date	Preventative Maintenance on spray booth & Fan

Spray Booth #1 & #2	AUTO BODY INSPECTION & PURCHASE LOG MONTH _____ YEAR _____

Spray Booths Daily Inspection Record
Intake & Exhaust Filters — Manometer Reading

Day	Booth #	Good Condition?	Filters Changed?	No Gaps?	Acceptable Range (-)	Initial
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
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21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

Weekly Inspection Record
Inspection Date

Check for the following					
VOC compliant coatings? (<6.0 lbs/gal)					
VOC containers closed?					
Only HVLP guns used?					
All priming & painting done in booth?					

Monthly Maintenance Record

Date	Preventative Maintenance on spray booth & Fan

Prep Stations #1 & #2	AUTO BODY INSPECTION & PURCHASE LOG MONTH _____ YEAR _____

Prep Stations Daily Inspection Record
Intake & Exhaust Filters Manometer Reading

Day	Prep Station	Good Condition?	Filters Changed?	No Gaps?	Acceptable Range (-)	Initial
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
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21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

Weekly Inspection Record
Inspection Date

Check for the following					
VOC compliant coatings? (<6.0 lbs/gal)					
VOC containers closed?					
Only HVLP guns used?					
All priming & painting done in booth?					

Monthly Maintenance Record

Date	Preventative Maintenance on spray booth & Fan

Prep Stations #1 & #2	AUTO BODY INSPECTION & PURCHASE LOG MONTH _____ YEAR _____

Prep Stations Daily Inspection Record
Intake & Exhaust Filters **Manometer Reading**

Day	Prep Station	Good Condition?	Filters Changed?	No Gaps?	Acceptable Range (-)	Initial
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

Weekly Inspection Record
Inspection Date

Check for the following					
VOC compliant coatings? (<6.0 lbs/gal)					
VOC containers closed?					
Only HVLP guns used?					
All priming & painting done in booth?					

Monthly Maintenance Record

Date	Preventative Maintenance on spray booth & Fan

Solvent Still Log

Count the largest amount of spent solvent accumulated prior to on-site recycling. Count the total weight of still bottoms accumulated in each month.

Date	Pounds collected before recycling	Still bottoms—pounds collected	Operator initials

Month	Greatest Weight of Spent Solvent	Total Weight of Still Bottoms
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Instructions

Businesses that recycle their solvents by using a solvent still do not need to count the total amount recycled.

The largest amount of spent solvent accumulated during each month must be recorded. Also, record the total amount of still-bottom waste. While the use of this form is not required, it is offered as a service to solvent-still operators.

DANGEROUS WASTE EMERGENCY INFORMATION

Emergency Coordinator	Name: _____	Map of facility with emergency equipment, exit routes, and alarm locations:
	Phone: _____	
Alternate:	Name: _____	
	Phone: _____	
Fire Department:	Phone: _____	
Hospital:	Phone: _____	
Police:	Phone: _____	

Fire alarm is located: _____

Spill-control equipment is located: _____

_____

Fire extinguishers are located: _____

_____

_____

IN CASE OF A SPILL OR OTHER CHEMICAL EMERGENCY, ALSO CALL:

- **NATIONAL RESPONSE CENTER: 1-800-424-8802**
- **WASHINGTON EMERGENCY MANAGEMENT DIVISION: 1-800-258-5990 OR 1-800-OILS-911**
- **DEPARTMENT OF ECOLOGY REGIONAL OFFICE _____**

For Technical Assistance, call your Ecology Regional Office or go to www.ecy.wa.gov/programs/hwtr .

Ecology Publication Number 08-04-022

If you have special accomodation needs that require this in an alternative format, please call 360-407-6700 or 360-407-6006 (TDD).

DEPARTMENT OF ECOLOGY
State of Washington

Appendix G: Acronyms and Abbreviations

Acronyms and Abbreviations used in this document:

AHW	Acutely Hazardous Waste
API	American Petroleum Institute
APP	Accident Prevention Program
CESQG	Conditionally Exempt Small Quantity Generator
CP	Coalescing Plate
CTR	Commute Trip Reduction Program
DOSH	Division of Occupational Safety and Health
DW	Dangerous Waste
Ecology	Washington State Department of Ecology
EHW	Extremely Hazardous Waste
EPA	Environmental Protection Agency
HAPs	Hazardous Air Pollutants
HOCs	Halogenated Organic Compounds
HW	Hazardous Waste
IUC	Underground Injection Control
L & I	Labor and Industries
LQG	Large Quantity Generator
MQG	Medium Quantity Generators
MSDS	Material Safety Data Sheet
NESHAP	National Emission Standard for Hazardous Air Pollution
NOC	Notice of Compliance (notification to EPA for area source rules)
NOC	Notice of Construction (air quality permit)
NPDES	National Pollution Discharge Elimination System
O & M	Operation and Maintenance
ORA	Washington State Office of Regulatory Assistance
PCB	Polychlorinated biphenyls
POTW	Publicly Owned Treatment Works
RCRA	Resources Conservation and Recovery Act
SC	Spill Control
SQG	Small Quantity Generator
TCLP	Toxicity Characteristic Leaching Procedure
USDOT	United States Department of Transportation
UW	Universal Waste